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April 1952

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THE BRISTOL
MEDICO-CHIRURGICAL JOURNAL
A Journal of the Medical Sciences for the
WEST OF ENGLAND AND SOUTH WALES

VOL. 69 APRIL 1952 NO. 250

Contents

		Page
EDITORIAL		33
THE PREVENTION AND TREATMENT OF POSTPARTUM HAEMORRHAGE IN DOMICILIARY PRACTICE	*Dame Louise McIlroy*	35
THE SYMPTOMS AND CLINICAL DIAGNOSIS OF HIATUS HERNIA	*Mr. Ronald Belsey*	39
CONTACT DERMATITIS	*Dr. Clifford Evans*	45
BRISTOL'S NEW HEALTH CENTRE	*Dr. R. C. Wofinden*	49
ON REACTIONS WITH THE NEWER ANTIBIOTICS	*Dr. P. G. Dalgleish*	54
VIEWS ANCIENT AND MODERN ON PLACENTA PRAEVIA	*Mr. John Stallworthy*	57
UNEXPLAINED PYREXIA IN A CHILD	CLINICO-PATHOLOGICAL REPORT	60
REPORTS OF MEETINGS		64
CLINICAL SOCIETY OF BATH: THE MEDICAL HAZARDS CONFRONTING THE MODERN AVIATOR		
DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY: TONSILS AND ADENOIDS: DOGMAS AND DOUBTS; THE SCOPE IN CLINICAL ELECTROCARDIOGRAPHY; WHAT IS NEW IN ANAESTHESIA; THE PROBLEMS OF GERIATRICS		
SOUTH WEST ORTHOPAEDIC CLUB AUTUMN MEETING		
WATSON-WILLIAMS MEMORIAL LECTURE DEFENCE OF THE AIR PASSAGES		
ANNOTATIONS		69
PROBLEM FAMILIES IN BRISTOL; SOUTH WEST HOSPITALS' FINANCE IN 1952–53; FAMILY PLANNING ASSOCIATION		
CORRESPONDENCE		72
MATERNITY SERVICE IN BRISTOL. Dr. O. E. L. Sampson; Dr. F. G. Mogg; Dr. A. G. Heron		
APPOINTMENTS		74
NOTES AND NEWS		74

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Editorial

HEALTH CENTRES

It is certainly an advantage that financial stringency has caused delay in the provision of large numbers of health centres. Dr. R. C. WOFINDEN in this issue describes some of the difficulties encountered in building and organizing the first Centre in Bristol, which is also the first in the country to be built for the purpose.

A Health Centre sounds very nice in theory, but few people have a clear idea how one functions and what work should be done in it. The Bristol plan is based on the simplest form whereby several doctors will carry on orthodox "surgeries" under one roof and share the building with the District Nursing Service and the Local Authority Clinics. It provides for none of the pathological, X-ray or dispensary assistance, which many people consider one of the attractive possibilities in group practice, yet the running costs seem high enough already. It is clear that the experience of running a small number of centres for a year or two in different parts of the country is required before any mass building of centres commences.

MATERNITY SERVICES

We published in our last number an article by Professor Lennon on Maternity Services in Bristol and this issue includes letters expressing the general-practitioner view on those proposals. It is now learnt that the Bristol Clinical Area Joint Advisory Committee has set up a new Midwifery Committee to advise on the future of the maternity service over the whole of the Clinical Area. Before this new committee was formed, discussions had reached an advanced stage between the groups concerned with a view to the co-ordination of the Maternity Service in the City of Bristol on the lines recommended in the memorandum of the Bristol Local Medical Committee (*Brit. Med. J.*, 195, ii, 126). The main recommendations were that consultants, general practitioners and midwives should combine as a team in all midwifery cases; that every expectant mother whether she had to be confined in hospital or at home would be under the care of her own doctor if she so desired; and that maternity units should be set up with facilities for general practitioners who wish to practise midwifery to do their own cases under hospital conditions.

The new Committee must view these recommendations, which were warmly approved by other Local Medical Committees in the country, in the light of Professor Lennon's proposals and of the partially critical response of the local doctors.

CANCER PROPAGANDA

Professor Rendle Short has followed up his article on Cancer Propaganda in

the *Medical Press* of November 28th, 1951, with a letter in the *British Medical Journal* of February 2nd, 1952.

Briefly, his argument is that if patients would go to their doctor as soon as there were signs or symptoms of cancer, the amount of invalidism could be greatly reduced, and the expectation of life increased. He suggests that a pilot propaganda scheme should be tried in the South West area concentrating on cancer of the breast, uterus and mouth, using the pamphlet or newspaper article rather than the hoarding to tell the patient the need for early diagnosis. Professor Rendle Short does not think that this would lead to cancer phobia, or that the already overworked G.P. would be harassed by a stream of frightened people. It certainly seems worth a trial, and we understand that the Health Committee of Bristol Corporation are likely to give their approval; it is hoped that other Health Authorities will co-operate.

A NEW M.O.H. FOR TUBERCULOSIS

A weakness of the N.H.S. is that while treatment of tuberculosis is in the hands of the Regional Hospital Board, prevention and after care are maintained by the Local Health Authority. To remedy this defect an assistant Medical Officer of Health is to be appointed in Bristol and will be responsible for the co-ordination of the tuberculosis service. The bewildered G.P. will now have someone to whom to turn when he has patients in the same family, some of whom are under the Hospital Board, and some under the care of the Health Department.

THE PREVENTION AND TREATMENT OF POSTPARTUM HAEMORRHAGE IN DOMICILIARY PRACTICE*

BY

DAME LOUISE McILROY, M.D., F.R.C.P., F.R.C.O.G.

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Postpartum haemorrhage can be a terrifying emergency and the life of the patient depends upon the promptitude of treatment. A young practitioner may meet it in domiciliary practice either at home or abroad, possibly where hospital accommodation for maternity cases is limited, or where a hospital is a long way away. So he must know how to avoid this haemorrhage by proper management of the third stage of labour and how to treat it when it does occur.

CAUSES OF POSTPARTUM HAEMORRHAGE AND THEIR PREVENTION

The two main causes of postpartum haemorrhage are atony of the uterus, and trauma of the pelvic tissues.

Atony of the uterus is associated with failure of the muscular fibres to contract and retract and obliterate the thin walled sinuses in the placenta area, blood fails to clot and vessel openings fail to retract. Atony of the uterus may be associated with laceration of tissues which takes place during parturition.

Predisposing causes of postpartum haemorrhage can be traced to (*a*) antenatal conditions, (*b*) labour and to (*c*) delivery. Anaemia and toxaemia with their nutritional deficiencies, cardiac and pulmonary diseases all influence the stages of labour, therefore these must receive proper attention during pregnancy. Placenta praevia or toxaemia may cause antepartum haemorrhage and if this is followed by even a slight degree of bleeding after delivery the risk to the mother's life is considerable. Every precaution should be taken to avoid or correct such complications as pelvic and foetal disproportion, malpresentations, over-distension of the uterus, and other factors which cause delay and uterus atony. Relaxation as advised by Grantly Read has done much to prevent uterine atony and lacerated tissues during labour.

At the present time there are arguments about the use of sedatives in the first stage of labour, and about the risk that deep or prolonged anaesthesia may effect uterine action in the second stage. Undoubtedly the administration of nitrous oxide with air or oxygen has been a great boon in domiciliary practice. If there is delay in the second stage of labour, and forceps application is indicated, there may be difficulty or delay in obtaining the assistance of an anaesthetist. Though the administration of chloroform is now condemned by most obstetricians, there is still a place for it in emergency conditions when given by the intermittent method on an open mask; under these conditions it is the safest and easiest method. It should be avoided in all cases of toxaemia and should not be repeated. Care should be taken to avoid a solid meal within some hours of delivery.

* A paper delivered to the Bristol Medico-Chirurgical Society on 13th February, 1952.

With further development of analgesic methods such as low spinal and local infiltration, obstetric operations such as forceps and repair of lacerated tissues will become much safer.

More skill in the delivery of the infant, and the avoidance of hurried interference are more important than all the arguments for and against sedatives and anaesthetics.

In the management of labour these three points need constant attention. The patient must be given plenty of fresh air and the oxygen content of her blood must be maintained; a supply of oxygen should be at hand in every midwifery case, normal or otherwise, for it may be required if there is a haemorrhage. Exhaustion should be prevented by giving light meals, and plenty of fluids such as tea, milk or fruit drinks sweetened with glucose. Thirdly, and of much importance, the bladder should be emptied at regular intervals throughout labour, say every three hours and especially before delivery. The patient can sit on a bedpan or on a stool; but to reduce the risk of sepsis only under exceptional conditions should a catheter by employed.

If the bladder is full considerable discomfort or pain is experienced during labour and delivery. This is especially so during the third stage of labour if the uterus is compressed in order to assist delivery of the placenta. Pressure on a full bladder may be accompanied by shock. (In former times, delivery with an unemptied bladder used to be followed by vesico-vaginal fistulae, either from the foetal head or from the hand of an attendant.)

MANAGEMENT OF THE THIRD STAGE OF LABOUR

It is most important not to interfere with the normal third stage of labour for this is one of the biggest causes of postpartum haemorrhage. In domiciliary practice once the birth of the infant has taken place the waiting relatives cannot always understand why there is delay before they can have access to the patient and the newborn baby. The attendants are therefore inclined to pay too much heed to the clock, and to shorten when possible the delay before the delivery of the placenta. What matters is the condition of the patient and not the time factor.

The British method of management of the third stage of labour hitherto has been to keep the hand on the uterus in order to prevent haemorrhage and to aid expulsion of the placenta by uterine contractions. During my attendance in the obstetric clinics of Berlin and Vienna in my early post-graduate days I was much impressed by the management of the third stage. There, after delivery, the patient was covered and allowed to rest from the fatigue of labour and delivery. At intervals the attendant placed the hand on the uterus to find out if the placenta had descended into the vagina. If not, more time was given, and no effort made to dislodge it. When it was found to have reached the vagina the patient was told to press down and expel it by means of her abdominal muscles. In this way the birth of the placenta was rarely accompanied by unusual bleeding and the third stage was not unduly prolonged. This method of management of the third stage I have taught ever since, with insistence that the patient is kept continuously under the supervision of the attendant but without interference with the progress of the third stage.

When this method is employed the patient after resting may begin to feel uterine contractions followed by some lengthening of the umbilical cord and a

gush of blood. This indicates the separation of the placenta. If the attendant's hand is placed on the abdomen the uterus is felt to be high and movable with a certain amount of prominence above the symphysis pubis. The uterus if soft should be gently massaged and when it has contracted the thumb is placed outside the abdomen and the fingers behind the uterus; the uterus is then gently pressed downwards and backwards in order to expel the placenta from the vagina. As soon as the placenta appears at the vulva the hand is taken off the abdomen, and both hands cup-shaped are placed to receive the placenta and prevent sudden tearing of the membranes.

The placenta should be laid flat on a towel or dish and examined on both sides to show if it is intact. If the membranes are caught in the cervix time should be given for the uterine contraction to pass off, and then the membranes should be gently delivered by the forefingers and thumbs. The uterus can now be massaged, and the toilet of the patient completed, the binder and pad being applied at the vulva. If small portions of the placenta or pieces of membrane are missing a note to this effect should be placed on the patient's chart, but no exploration of the uterus must be made. Ergometrine 0·25 mg. to 0·5 mg., or pituitrin 5 units intramuscularly can be given, if required.

TREATMENT OF POSTPARTUM HAEMORRHAGE

Textbooks say that blood loss over 500 cc. amounts to postpartum haemorrhage. But in practice we cannot measure the amount a patient has bled; the appearance of the sheets is unreliable and an atonic uterus may be greatly distended by blood without there being much external loss. A severe haemorrhage however soon gives rise to signs of shock. In these cases, blood transfusion may be necessary; and full blood grouping, including Rhesus factor, in pregnancy will save vital moments should a haemorrhage occur during or after delivery. All patients should therefore keep a card giving details of their blood group.

Bleeding due to lacerations is continuous and bright red in colour and may occur either during or soon after the delivery of the infant. The uterus may be contracted to some extent. Except in cases of severe shock lacerations should be repaired as soon as possible, particularly those in the region of the clitoris. If lacerations are higher, in the lateral fornices or in the lower uterine segment, the bleeding vessels should be compressed by means of pads and a binder. When the home conditions are unsuitable the patient should be sent to hospital for repair.

If the placenta is in the uterus and bleeding takes place the usual procedure is to remove the placenta as quickly as possible.

Bimanual Removal of the Placenta. The indication for this operation is haemorrhage which cannot be controlled by gentle massage of the uterus. It is not difficult if carried out by a skilled obstetrician in hospital, with the help of a specially qualified anaesthetist. However in the patient's home, with little assistance and indifferent anaesthesia, the operation is much more difficult especially if the patient is squirming about the bed from pain.

The patient should be on her back with legs flexed, and all precautions taken to avoid sepsis. The left hand is placed on the abdomen and controls the uterus throughout the operation. The lubricated right hand is inserted slowly into the uterus until the edge of the placenta is felt. When this has been completely separated from the uterine wall, it is grasped by the hand and gently delivered by

traction on the cord. The hand remains in the uterus until inspection of the placenta has shown that no portions are left behind. This lessens the risk of sepsis by introducing the hand a second time. If the hand entering the uterus follows up the cord inside the membranes the risk of sepsis is said to be reduced; but this method makes it difficult to separate and grasp the placenta. As soon as the operation is completed the uterus can be massaged and ergometrine administered either by the intravenous or intramuscular route. Pads and binder are applied and the patient allowed to rest. A sedative and a cup of hot tea may be given if required.

Later Bleeding. There have been various treatments for haemorrhage after the delivery of the placenta. Hot douching is a problem in domiciliary practice. It takes time to prepare and ascertain the correct temperature, and a douching apparatus is not always carried in the bag. If too hot, a douche causes damage to the pelvic tissues with consequent sepsis. Packing the uterus with yards of sterile gauze means considerable preparation and assistance. Unless tightly packed it is inefficient in the arrest of bleeding, and anyway it prevents contraction of the uterus, is uncomfortable for the patient, and to be carried out efficiently needs an anaesthetic. This method of treatment has now largely been discarded. The most usual method now is that of bimanual compression of the uterus. One hand in the vagina pushes the anterior wall of the uterus upwards. The outer hand is placed on the abdomen and presses down the posterior wall of the uterus. This bimanual compression is carried out until no further bleeding takes place. Care must be taken to empty the bladder before applying the hands. The disadvantage of this treatment is that it takes up the whole attention of the attendant and may be prolonged, and is sometimes very tiring both for patient and attendant. When the pressure is discontinued bleeding may take place later, which again would require attention.

The Pad and Binder. The method I devised some years ago has given much more satisfactory results and is easy to apply. It can be used in cases of severe haemorrhage and shock, in cases of abortion and also as a temporary measure in ruptured ectopic pregnancy. The method is simple, inexpensive and available at a moment's notice. It consists of a broad many-tailed abdominal binder made of strong cotton or calico, a long pad or towel attached to the binder behind and pinned over the vulva when the binder has been applied. A smaller pad is used for pressure above the symphysis pubis to put the uterine vessels on the stretch. A sanitary towel is very useful for this purpose.

The patient is placed on her back on the spread-out binder with her legs stretched, and the flat hand above the symphysis pubis presses the uterus *upwards*, the small pad is then applied and kept in place until the binder with its overlapping tails is brought from the lower border upwards when the hand is removed. The last tails are then pinned in place. Two safety pins only are required, one for the upper last tails and one for the vulval pad in front when the binder has been applied. A safety pin can be used to keep the vulval pad attached to the posterior wall of the binder but it is more comfortable for the patient to have it already stitched. The binder can be left in position for some hours until the patient desires to pass urine.

If each midwife carried this simple outfit in her bag she need not dread postpartum haemorrhage.

THE SYMPTOMS AND CLINICAL DIAGNOSIS OF HIATUS HERNIA

BY

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Herniation of the cardiac end of the stomach through the oesophageal hiatus of the diaphragm, and the resulting disorganization of the normal sphincter mechanism at the cardia, is a common disease that can cause distress at any period of the patient's life from early infancy onwards. Most cases fall into two groups: children under the age of seven, and adults in their fifth to seventh decades. The lowest incidence is amongst adolescents and young adults but patients who first complain to their doctors in the later decades will often volunteer the information that they " have had trouble all their lives, but worse recently ". The sexes are affected about equally up to the age of fifty, when the incidence amongst females rises steeply above that amongst males. Some patients date their symptoms from a pregnancy; others remain free from distress till late in life, a fact difficult to correlate with the growing belief that the majority of these hernias are congenital in origin, and suggesting rather that factors other than the mere presence of part of the stomach in the chest may be responsible for the symptoms, or for the complications usually causing the symptoms.

The reason why the pathological significance of hiatus hernia and the misery it can cause the patient have occasioned so little clinical interest in the past, has been the frequent co-existence of other lesions, abdominal, cardiac, or mediastinal, which have tended to mask the hernia as the culprit. The patient's distress was attributed to the small cluster of gall-stones, the hypotonic stomach, or to some occult cardiac condition vaguely suspected. Even when improvements in radiological technique began to bring these hernias to light, there was still no move to assign to them any responsibility for the patient's symptoms and the traditional text-book myth of their innocence continued to bewitch the clinician. As recently as 1947 Radloff and King in reporting on fifty cases of hiatus hernia stated: " In sixty-eight per cent concomitant disease was found and was often responsible for the symptoms. Only thirty per cent had symptoms that could be attributed to the hernia. Surgery was necessary in only three cases." They concluded: " Diaphragmatic hernia is usually an insignificant finding, and is unusually asymptomatic."

This opinion is at variance with the experience of most clinics in this country, where at least fifty per cent of cases, and in children up to eighty per cent, show oesophageal ulceration, stenosis, or some other accepted indication for surgical treatment. Moreover, in thirty per cent of these cases the gall-bladder, appendix, or other organs considered responsible for the concomitant disease and the patient's symptoms have already been removed. For years cholecystectomy has been the standard treatment in patients suffering from hiatus hernia. Harrington

(1948) reports that in every one of his cases an average of three previous diagnoses had been made, and in ten per cent previous abdominal operations had been undertaken.

It is an accepted fact that this abnormality may be compatible with perfect health and complete freedom from symptoms but the considered opinion of numerous authors suggests that only twenty per cent are asymptomatic; this figure may require considerable modification when a statistically significant number of proven cases have been followed up throughout their normal span.

Hiatus hernia first came under suspicion as a prolific cause of subjective distress when the pioneer work of Allison (1948) implicated this condition in the aetiology of such obvious disabilities as gross fibrous stenosis of the oesophagus, repeated gastro-intestinal haemorrhage, anaemia, and duodenal obstruction, complications which can hardly be assigned to gall-stones, chronic appendicitis and diverticulosis of the duodenum or colon.

One of the most difficult problems for the clinician confronted by a patient with a radiologically demonstrated hiatus hernia is the assignment of the patient's various symptoms to it or to other underlying lesions which may be present in the heart or gall-bladder for example, and only consideration of the differential diagnoses and a complete and thorough investigation to exclude these alternative and possibly co-existing lesions can save the clinician from an embarrassing error, and the patient from an unnecessary operation. The problem may have been simplified by the previous removal of most of the other organs usually incriminated but this particular form of " diagnosis by exclusion " is not to the patient's advantage. Brick (1949) found associated lesions capable of causing symptoms in one in every four patients in his series of 308 cases. Clerf, Shallow, Putney and Fry (1950) list the errors in diagnosis that had previously been made in 35 of their 110 cases. They then state that an unspecified number of their cases, not included amongst the 35, had multiple lesions—" cholecystitis with or without gall-stones, coronary artery disease, duodenal ulcer or traction diverticulum ". Gilbert, Dey and Rall (1946), in search of associated lesions in support of the theory that a vagal reflex and oesophageal spasm are the cause of the hernia, found 27 upper abdominal and thoracic lesions amongst their 48 cases.

In theory at any rate, and in practice whenever the supply of X-ray film renders it possible, every patient with a proven, uncomplicated, hiatus hernia should have a cholecystogram, a complete barium investigation of the stomach and duodenum, and a cardiological check-up. When the hernia is already complicated by oesophagitis, chronic ulceration, or stenosis, one is on safer ground in assuming its responsibility for at least the major portion of the patient's distress. By the same token, the patient with symptoms of so-called " gall-bladder dyspepsia " should have a barium swallow in the prone head-low position as well as a cholecystogram.

When the presence of multpile lesions has been revealed, common sense and clinical acumen, whatever these may be, must dictate which, if any, require treatment, and the order of precedence. The abdominal surgeon will probably remove the gall-bladder first; the thoracic surgeon will be more interested in the hiatus hernia, but it is probable that each will be wrong with equal frequency. Only from the follow-up clinic will " the light " eventually emerge, and the time

and labour spent in objective post-operative surveys, preferably conducted by a third disinterested party, will shorten the period of medieval obscurity that surrounds this and so many other problems in surgery.

The co-existence of gastric ulceration and hiatus hernia presents a further problem in that acute high lesser curve ulceration appears to be common in the patient with an hiatus hernia, and the intermittent haemorrhage that occurs may come from this source rather than from the oesophageal ulceration. In short, there may be a close aetiological relationship between the two conditions and on occasion simple repair of an hiatus hernia has led to the prompt healing of a chronic lesser curve ulcer refractory to all forms of medical treatment. There appears to be a closer relationship between these two conditions than can be explained by mere coincidence.

The hazards of diagnosis are well illustrated by the following case. A man of fifty-nine years, suffering from the characteristic symptoms of hiatus hernia, but rather more dyspnoea than usual for a man of his age, was referred to a thoracic unit for oesophagoscopy and further investigation. He had previously been seen by a cardiologist on account of his dyspnoea and the heart pronounced as normal. On the day before admission he dropped dead in a cinema. Autopsy revealed an hiatus hernia and gross aortic valvular stenosis.

The clinical picture presented by a case of hiatus hernia is fairly typical, and the following description by Allison (1951) cannot be bettered:

> A woman of fifty-nine years of age complains that for six years she has suffered from intense burning pain behind the lower part of the sternum, which rises up towards, or even into, the neck. It may spread into the jaw, the ear or the hard palate, or radiate through to the back between the shoulder blades, or down the arm. It comes on especially when she exerts herself stooping forward, as in washing the floor, bending over the wash-tub, poking the fire or fastening her shoes. It wakes her in the middle of the night, especially if she is sleeping on her back or her right side, and she seeks relief from what she describes as an agonizing pain by sitting upright and taking a few sips of water, milk or alkaline mixture. She says that her throat usually feels dry and burning. When she swallows she may be conscious of the passage of food down the gullet, it may cause a feeling of soreness and may sometimes lodge towards the lower end of the sternum, causing pain which is immediately relieved as the bolus passes into the stomach. If she bends forward after a meal, food or sour fluid rises into her throat and has to be swallowed again. Her husband says that for belching she takes the first prize. Four years ago she was thought to have cholecystitis, but removal of either a normal or abnormal gall-bladder did not cure her. Radiography of her stomach and duodenum shows no evidence of ulcer. She has tried all the advertised stomach medicines with only temporary relief, and has finally been told that " the nerves of her stomach have been upset by the change of life ". This story, with minor variations, occurs often enough in the hospital out-patient department to deserve more notice and better treatment.

Pain, heartburn, dysphagia, and postural regurgitation are the commonest symptoms of this condition.

Pain, epigastric and substernal, is the symptom from which the patient most frequently seeks relief. The pain radiates upwards and may extend down the arms; it is nearly always aggravated by stooping forward or by lying flat at night and most patients discover for themselves the relief to be obtained by sleeping propped up in bed on several pillows at night. When oesophageal ulceration is present the pain may also extend backwards between the shoulder blades and tends to be more severe, but even in the absence of oesophagitis pain is often the

presenting symptom. Fortunately pain is the symptom most frequently and completely relieved by surgical reduction and repair of the hernia.

Chronic heartburn and acid regurgitation are common, and result from the incompetence of the normal sphincter mechanism at the cardia which follows its divorce from the right crus of the diaphragm. The occurrence of chronic heartburn is virtually pathonomonic of an hiatus hernia and is seen in few other conditions. It does not necessarily indicate the existence of oesophagitis and is just as common in the uncomplicated hernia.

Regurgitation is usually promoted by changes in posture, such as stooping or lying down, but may occur without any warning nausea quite suddenly at the start of, or during, a meal. The patient may have to rush from the table to vomit, but can then return and finish the meal without further difficulty. No regurgitation may occur for weeks or months, then suddenly it returns. The very uncertainty of this occurrence and the embarrassment involved prompts the sensitive patient to shun all social engagements. Some say they are afraid to eat, but the appetite remains good and weight loss is uncommon.

Dysphagia occurs in two forms. When oesophagitis is present there may be pain on swallowing, especially of hot fluids, and also the sensation of a hold up in the lower substernal region. The patient may localize this sensation in the region of the cervical oesophagus, and a diagnosis of globus hystericus inevitably follows. When secondary fibrous stenosis of the lower third complicates chronic reflux oesophagitis the symptoms become those of organic oesophageal obstruction—greater distress and prompt regurgitation following attempts to swallow, the regurgitation of frothy mucous between meals and first thing in the morning, and rapid wasting of the patient. The stenosis may develop at any time between infancy and old age. An infant of four months has recently been admitted to Frenchay Hospital with almost complete obstruction of the lower oesophagus, necessitating an emergency gastrostomy. In older patients the obstruction may be of short duration and progressive, prompting a clinical diagnosis of carcinoma. Why severe ulceration and stenosis should develop quite suddenly in a patient of sixty or seventy, or even eighty, remains one of the mysteries of the natural history of this disease. It is probable that those cases said in the past to have been cured of oesophageal carcinoma by a gastrostomy and a course of X-ray therapy were in fact examples of these inflammatory strictures; a sufficient number have now been excised and examined histologically to exclude the possibility of atypical scirrhus malignant disease, unproven by biopsy, as a cause of the stenosis.

Haemorrhage may also occur in two forms. In the presence of oesophagitis the vomit may be streaked with blood. Frank haematemesis, sometimes massive, also occurs but probably from a different cause; the acute ulceration of the lesser curve of the stomach already mentioned is the more likely source. Secondary anaemia is frequently seen but not constantly in association with oesophagitis or gastric ulceration, as one would expect, suggesting that some other factor is involved. In children on the other hand, the relationship between oesophagitis and anaemia is much more constant.

Various atypical symptom complexes may be seen. There is one type of pain associated with a hernia, and undoubtedly caused by it, which may resemble the pain of angina. The patient complains of acute praecordial pain or distress, coming on in spasms, and radiating up to the left or both sides of the neck, and

down the left arm; but the pain usually follows a meal and is not related to exercise. Nuzum (1947) reported an incidence of twenty-five patients with hiatus hernia in 100 private patients diagnosed as having angina pectoris; Gilbert (1948) found an incidence of eighteen, or 17 per cent, with angina-like pain in 107 patients with hiatus hernia.

Two patients in whom the presenting symptom was acute pain behind the right ear due to a vagal reflex with pain reference to the distribution of its auricular branch, have been investigated at Frenchay. The co-existence of other more characteristic symptoms—heartburn and postural regurgitation—led to the diagnosis.

Another interesting group of patients present with pulmonary symptoms—chronic productive cough and dyspnoea due to pulmonary fibrosis and bronchiectasis, the result of nocturnal regurgitation, and recurring bouts of acute aspiration pneumonitis. A doctor recently sought relief by surgery because of the frequency with which he was awakened at night choking in his own vomit.

Other cases are first seen as a result of an acute catastrophe. Two patients in each of whom there was a history of the typical symptoms, but too mild to take them to their doctors, were admitted to hospital moribund and died shortly afterwards, one with an acute ulcer at the cardia which had perforated into the hernial sac, the other with gangrene of the intra-thoracic portion of the stomach due to torsion.

In the great majority of cases the history and symptoms present a clinical picture which can now be regarded as characteristic of hiatus hernia and which enables a provisional diagnosis to be made with fair accuracy. Any patient complaining of chronic heartburn, intermittent regurgitation, dysphagia, and substernal or epigastric pain aggravated by stooping or lying flat should be subjected to the routine investigations necessary to confirm the diagnosis: a barium swallow examination in the prone head-low position, and oesophagoscopy.

In considering the differential diagnosis, the possible coincidence of two or more common conditions must be envisaged. The conditions most likely to cause confusion are cholecystitis, peptic ulceration of the stomach and duodenum, and other causes of dysphagia, such as carcinoma of the oesophagus or stomach. Fortunately there are available methods of special investigation which render the differentiation of these conditions a relatively simple process. No longer should it ever be necessary to resort to such thoroughly unsatisfactory diagnoses as "chronic appendicular dyspepsia, cyclical vomiting, gastrostaxis, abdominal migraine, or the functional abdomen".

No mention has been made of the clinical picture presented by the child suffering from this condition; he complains of nothing but is ill, and often desperately so, with vomiting, anaemia, wasting, and acute starvation due to oesophageal obstruction. He may run a persistent pyrexia, due to the inflammation of the oesophagus or the chronic aspiration pneumonitis. In neither the child nor the adult are there any characteristic physical signs that can be elicited on clinical examination; it is their very absence that sometimes leads to the diagnosis.

In conclusion, mention should be made of four simple tests that may assist in

the clinical diagnosis of hiatus hernia prior to resort to special methods of investigation:

(i) The effect of posture and the relief obtained by the patient when encouraged to sleep propped up;

(ii) The failure of alkalis to relieve appreciably the pain and regurgitation, due to the mechanical factors involved;

(iii) The absence of epigastric tenderness in the presence of epigastric pain;

(iv) A history of previous abdominal operations and their failure to relieve the patients' symptoms.

REFERENCES

Allison, P. R., (1948). *Thorax* **3,** 20.
Allison, P. R. (1951). *Surg. Gynec. Obstet.*, **92,** 419.
Brick, I. B. (1949). *Mississipi Valley M. J.*, **71,** 2.
Clerf, L. H., Shallow, T. A., Putney, F. J., and Fry, K. E., (1950). *J. Amer. Med. Assoc.*, **143,** 169.
Gilbert, N. C., Dey, F. L., and Rall, J. E. (1946). J. *Amer. Med. Assoc.*, **132,** 132.
Gilbert, N. C. (1948). *M. Clin. N. Amer.*, **32,** 213.
Harrington, S. W. (1948). *Surg. Gynec. Obstet.*, **86,** 735.
Nuzum, F. R. (1947). *Amer. Heart J.*, **33,** 724.
Radloff, F. F., and King, R. L., (1947). *Gastroenterology*, **9,** 249.

CONTACT DERMATITIS

BY

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A contact or exogenous dermatitis is one in which an external irritant is the most important cause; but a constitutional factor undoubtedly also plays a part, and accounts for the fact that only a certain proportion of a community, in contact with the same irritant, develops dermatitis. Most cases of contact dermatitis clear up quickly when the irritant is removed, but in some the rash persists and spreads to other areas because the patient has a constitutional tendency to develop eczema. Contact dermatitis is responsible for a great loss of manpower in industry, and causes disability amongst the general population, especially in housewives.

The clinical appearances and histopathology of patches of eczema or dermatitis are identical; the former term is commonly used when constitutional factors are thought to be responsible for the condition, and the latter when external factors predominate. Unfortunately *dermatitis* suggests occupational dermatitis to the worker, and it is advisable to avoid the use of this name whenever possible, unless an occupational cause is likely, e.g. seborrhoeic eczema instead of seborrhoeic dermatitis. The first clinical finding is erythema of the affected area. Papules appear and then vesicles which burst and give rise to weeping. Infection may then supervene or the exudate may dry up and leave a scaling condition. Irritation is a prominent symptom and the rubbing and scratching cause thickening or lichenification of the skin.

The irritants can be divided into primary and sensitizing irritants. The primary ones are those which, used repeatedly, or in sufficient concentration, will affect the skins of most people. Examples of these are the strong acids, alkalis and soaps, degreasing agents such as petrol, lime and cement. Sensitizing irritants are those to which the skins of some people become sensitive after one or many contacts. Primulas, aniline dyes, turpentine, penicillin and streptomycin, antiseptics, and elastoplast are a few well-known substances of this group. Almost any chemical can sensitize the skin and cause dermatitis in a small proportion of people, but it is often very difficult to convince a patient that his rash has been produced by something which he has been handling for many years, and the patch test, if positive, is helpful in these cases. Primary irritants probably account for about eighty per cent of cases of contact dermatitis.

Certain factors are commonly found to precipitate an attack. The aged, whose skin is becoming dry and atrophic, are liable to develop contact dermatitis; increased exposure to the irritant occasioned by longer working hours may be the

cause; constitutional disturbances, such as occur at puberty, the menopause, or with psychological trauma, may precipitate a breakdown. In some cases dermatitis develops on returning to work after a period away from it. The skin appears to have lost some immunity to irritants, and dermatitis develops. A chronic eczema, such as is seen with varicose veins, seems to lower the resistance of the rest of the skin and render the patient more liable to contact dermatitis.

DIAGNOSIS

The discovery of the irritant responsible for the rash is obviously of paramount importance as treatment is unlikely to be successful if the irritant is still affecting the skin. The history is a very important part of the investigation of the case and may reveal, almost at once in some cases, the cause of the trouble. A rash occurring on areas of skin which have recently been in contact with a known irritant is likely to have been caused by that substance, for example a new washing powder.

An accurate diagnosis can frequently be made after a careful evaluation of the answers to the following questions:

When did the rash appear? This may be at a certain time or day each week. For example a patient woke at five o'clock each Sunday morning with intense irritation of the hands and face. Later a rash developed in these areas, and further questioning elicited the fact that she cut off the dead leaves of a number of primulas every Saturday night. She has since avoided primulas and has had no further trouble.

Where did the rash first occur? For example a generalized rash may have spread from the areas on the thighs in contact with nickel suspender fastenings and the patient, unless specifically asked about it, may not think the site of origin is important.

Is there improvement when a certain potential irritant is avoided? For example dermatitis due to lipstick will usually clear up quickly when the sufferer ceases to use it.

What sites are affected? As mentioned above, a rash on the thighs in areas in contact with suspenders is likely to be due to the nickel fastenings. A dermatitis exactly limited in its early stages to the area of the application of a medicament, for example sulphonamide paste, is presumably due to that substance. Dermatitis due to dusts or gases will affect the exposed surfaces and may cease abruptly at the collar or sleeves.

The sites affected by the constitutional eczemas tend to conform to certain patterns. The infantile type occurs chiefly on the cheeks and forehead, the bends of the arms and behind the knees. Seborrhoeic eczema has a predilection for the scalp, eyebrows, ears, front and back of the chest, groins and axillae. Nummular eczema has discrete patches chiefly on the limbs. If the distribution does not conform to one of the patterns of the constitutional eczemas an external irritant should be suspected.

Is the patch test positive? The patch test is performed by applying some of the suspected substance to the unaffected skin, commonly the upper arm or back. Tables giving suitable dilutions for testing should be consulted (Sulzberger,

1943). If a liquid is to be used a few drops should be placed on a small piece of lint one inch square and then applied to the skin. A powder can be dusted on to the lint which has previously been moistened. The patch is strapped on with elastoplast and a control patch, omitting the substance to be tested, is placed on another area of skin. At the end of twenty-four hours the patches are removed. Erythema or vesiculation of the area in contact with the suspected chemical is recorded as a positive reaction, and is strong evidence that the substance tested has caused the dermatitis. Occasionally the reaction is delayed and the area should be examined again at the end of forty-eight and seventy-two hours. A negative reaction does not always exclude the tested substance because other factors, such as friction and degreasing agents used to remove the irritant, do not operate in the patch test. This test is not usually done in the acute stage of dermatitis as it may, with some irritants, produce a widespread exacerbation.

TREATMENT

The first consideration in the treatment is to avoid the offending irritant. This may mean a change of occupation. A housewife whose skin is intolerant to the alkaline soap powders is a great problem as any soap, or even water alone, will aggravate the dermatitis. In some cases rubber gloves, well powdered with talc inside, are helpful; but many people find that the sweating and maceration of the skin, which they cause, preclude their use. Barrier creams such as Rosalex or Innoxa are of little value in preventing further attacks of dermatitis although they help to protect the healthy skin. Desensitization of the skin to irritants is practically impossible. Sedatives such as phenobarbitone, which often work better when combined with aspirin, are helpful. The antihistamine drugs by mouth may help to relieve the irritation.

The essential part of the local treatment is to use bland remedies. In the acute stage normal saline, lead lotion, or one-half per cent silver nitrate compresses are helpful. These must be kept moist by frequent changing. If there is not much exudate Cremor Calamine Co. B.P.C., with one per cent phenol added, is a useful preparation. When the acute stage is passed an application with some covering power is suitable, and a paste such as the following is commonly used: Zinc oxide and starch one drachm of each, yellow soft paraffin two drachms, and hydrous emulsifying ointment B.P. to one ounce. This is applied once or twice a day direct to the skin and covered lightly to protect the clothing. For infection two per cent of ammoniated mercury may be added to the paste and for irritation two to four per cent of crude coal tar. The skin should not be cleansed between applications as the trauma retards healing. Once the acute phase is over superficial X-ray therapy can be given, a suitable course being four doses of *100r* each at intervals of seven to fourteen days.

The prognosis is affected by a number of factors. Once dermatitis has developed continued exposure to the irritant tends to increase the severity of the attack, and also polyvalent sensitivity may supervene. It is therefore, very important that other work shall be found for the workman with occupational contact dermatitis, and assistance obtained for the housewife for many of the household duties. The psychological aspect is of great importance. A period of enforced idleness allows the patient too much time to think of his skin trouble,

and to worry about his future capability for work or other duties. This undoubtedly has a bad effect on recovery.

SUMMARY

Contact dermatitis is common in industry and elsewhere. The essentials in the management of a case are to discover the irritant responsible as soon as possible and to avoid it. Bland local treatments are indicated with superficial X-ray therapy in certain cases. Attention must be paid to the psychological problems which may arise.

REFERENCES

Sulzberger, M. B. (1943). *Year Book of Dermatology*, Chicago.

BRISTOL'S NEW HEALTH CENTRE
in Leinster Avenue, Knowle West

BY

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One feature of the National Health Service Act, 1946, to receive almost unanimous approval from the medical profession, was the power given to local authorities to provide, equip and maintain health centres. So far no new health centre, built specifically for the purpose has been opened, and the health centre at Leinster Avenue which will come into operation this month (April 1952) will be the first. This is an account of the origin, nature and purpose of this centre.

The Knowle West estate in Bristol was built in the thirties, and although about 30,000 people live there, it possesses few community facilities and the medical services are inadequate. There is no resident doctor or dentist but there are two local authority clinics at the periphery. General medical practitioner services have been provided by doctors using, as sub-tenants, one room of a council house, the front garden of which has served the purpose of waiting room. The residents frequently asked the Council to provide better medical services.

The Health Committee tried to persuade general medical practitioners to *live* on the estate, but none of those who practised there were ever willing to do so. The Committee then considered supplying a resident doctor through the Poor Law Service, but found his work would have been limited to the destitute, so most of the population would still not have benefited. In 1939 two Corporation houses on the estate were adapted for the minor ailment treatment of patients of any age. These were staffed by nurses who also lived on the premises; this arrangement was valuable to the many residents who could not use a telephone when they wanted their doctor. The legality of this venture was open to doubt as it was claimed to be ancillary to the Southmead Municipal hospital which was situated some miles away. But this desperation measure proved to be an invaluable service, for many thousands of patients have been treated there each year. When the National Health Service Act came into force this service was continued by the District Nursing Association and, in due course, all its work will be transferred to the new health centre.

When the Act came into force, Knowle West was immediately considered to have a prior claim for a health centre, and negotiations were begun with a group of interested doctors and with the Ministry of Health. This is not the place to tell of all the frustrations and delays met in obtaining land in a built-up and established area, in persuading the Ministries of Health and Education that this was an urgent problem, in negotiating with all groups who might be interested such as the Executive Council, Local Medical, Dental and Pharmaceutical Committees, and the Regional Hospital Board; and in formulating plans which

would receive the approval of all interested parties. Suffice it to say that ultimately it was agreed to provide a temporary health centre for the joint use of general medical practitioners and the local health and education authorities.

THE BUILDING

The centre cost approximately £12,000 to build exclusive of land and internal equipment. It is of Orlit construction with a pleasing exterior and the planning is simple and restricted to imperative needs.

There are six self-contained suites for the use of the general medical practitioners; each suite is comprised of a consulting room, private waiting-room and examination room (with buzzer communication between the two former rooms).

There is a main waiting hall which is intended to be used when there is a child welfare clinic and when group health education is being undertaken. Opening off the hall is a large office in which all records will be stored, clerical and typing work undertaken, and telephone calls will be handled, and there is an inquiry hatch between the office and main hall.

The centre has a well-placed and reasonably large treatment room with recovery and waiting space annexes and the sister's room is nearby. In a separate wing of the building there is a staff room, kitchen and lavatory.

There is space enough to store small stocks of nursing appliances for use on the district. The centre is heated by gas-fired boilers and the separate rooms could be heated by electric fires if need be.

EQUIPMENT

To begin with, only essential items have been provided; thus, for the personal use of the general practitioners, there are sphygmomanometers, various speculae, syringes, needles, etc., cupboards for instruments and drugs, and filing cabinets. The treatment room is equipped for minor operations, sight testing and examination of urines. There is also equipment for ante-natal, post-natal, child welfare and school sessions.

STAFF

Considerable thought has been devoted to the staffing of the Centre for it is on this that its success or failure is likely to depend. The local authority will draft its own staff from its local pool; they will not be stationed at the centre. The personal staff for the general practitioners include two secretary-typists and one general clerk, all of whom may have to work morning and evenings with afternoons free.

There will be no health centre manager such as is advocated in the Report of the Health Centres Committee of the Central Health Services Council. Instead a superintendent nurse will be in general charge of the centre. She will have a deputy and there will be three full-time clinic nurses. Five nursing staff may seem rather generous but the treatment room, where they will work, will be open all day not only for the treatment of general practitioner patients but also for the minor ailment treatment of children referred from the local authority clinics. The superintendent will have to devote part of her time to administrative work; arrangements will have to allow for holiday and sickness relief. A night porter and part-time cleaners complete the establishment.

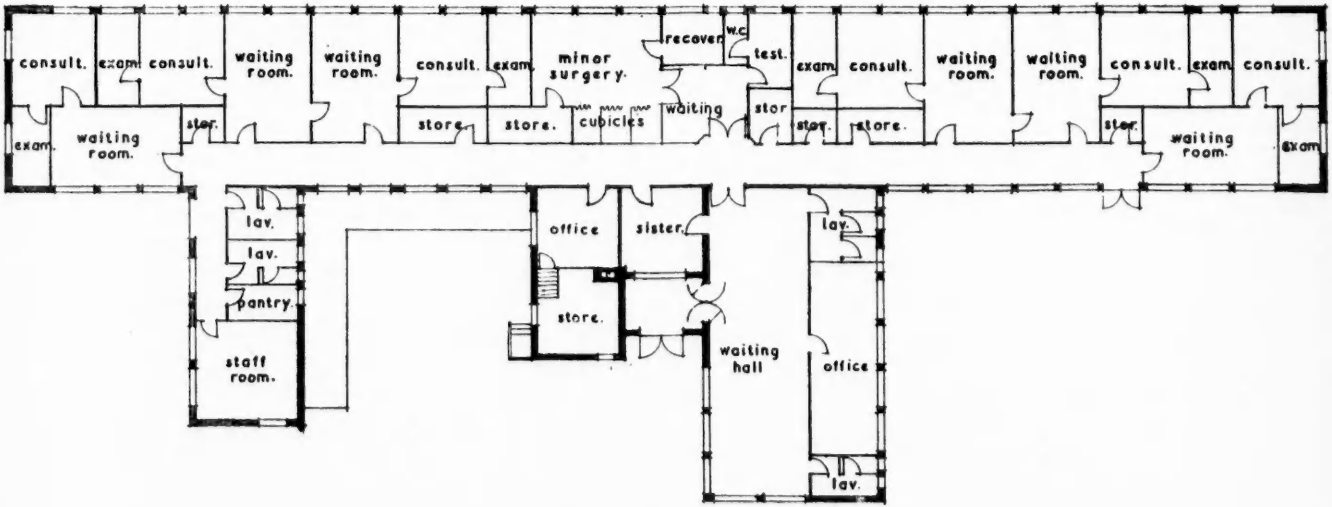

Diagram 1. Bristol's first health centre, Leinster Avenue.

The superintendent, her deputy and the clinic nurses will live in houses adjacent to the centre; the district nurses and midwives working in the district served by the centre will live in houses next to the clinic nurses. In this way it is hoped that the nursing staff will come to know one another better.

No residential accommodation has been provided for a caretaker.

THE CENTRE IN OPERATION

Practitioners will use the Centre in the mornings and evenings for their usual "surgeries". The local authority will use the premises, including the general practitioner suites, in the afternoons.

A general practitioner's patients calling at the inquiry desk will be conducted to his waiting-room and their records will be placed on the desk in his consulting room. Patients referred to the treatment room will wait in the annexe. Doctors' letters, home visit appointments made by the Centre, and patients' appointments at hospitals will be dealt with by the secretary-typists.

For the time being, no financial arrangements have been made for group practice because some of the doctors are already in partnership with doctors not participating in the health centre. New patients, not on any existing list and with no preference for a particular doctor will be shared fairly between the doctors. This allocation of new patients will be reviewed every three months.

For the time being, each practitioner will be responsible for his own night calls, holiday and sickness relief. Each practitioner will be responsible for the ante-natal care of his own patients and has agreed to give a medical opinion on school children referred to him by the school health service.

Health visitors, home nurses and midwives who work in the district will use the centre as their base; this will enable them to collaborate more closely with the doctors.

The doctors, together with the Medical Officer of Health or his representative and the Nursing Superintendent will form the Health Centre House Committee to settle domestic problems. Policy matters will be referred to a Joint Advisory Committee composed of representatives from the Local Health Authority, Executive Council and Local Medical Committee. This Joint Advisory Committee has no executive powers, but will make recommendations to its parent bodies. These two committees have been in action for six months already; the former, as the *working committee*, has worked out the details of organization.

DISCUSSION

It would be easy for the critic to point out how far this venture falls short of the true health centre concept. There is no dental unit, pharmacy, X-ray or side-room laboratory. The local authority is supposed to provide these facilities, but there is no point in doing so if they will not be used! Neither the Local Dental nor the Local Pharmaceutical Committee wanted dental or dispensing facilities and the doctors were not anxious to establish a hospital out-patient department.

Initially, there will not even be a group partnership; indeed, there is no arrangement for mutual relief for emergency calls, or to cover holidays or sickness. But it should be remembered that the circumstances under which the centre has evolved are rather peculiar. They were certainly not envisaged by the planners

who seemed to be under the impression that in established areas general practitioners might be willing to break existing partnerships and form new associations. Except in new towns I think there is small likelihood of full-time health centre practice being conducted by a group of doctors working as a firm. I doubt whether such an arrangement can be made for a completely new housing estate, for even here the new tenants probably already have a doctor, who can, if he wishes, follow his patient to the new area. I feel that the only chance of making such an arrangement will depend on the presence in any locality of a group of doctors who are imbued with patience, enthusiasm and courage, and who are prepared to take the initiative by making known their requirements to the Executive Council and Local Health Authority.

Certainly it is only the tenacity and enthusiasm of the doctors at Leinster Avenue which has got us thus far. Maybe in due course they will come closer together in their business and working arrangements. Perhaps X-ray and side-room laboratory facilities, a pharmacy and a dental unit will be added at a later date. In the meantime the venture will enable the general practitioners and health authority staff to see something of each other's work with its difficulties, triumphs and disappointments. Even our severest critic could hardly condemn such a desirable objective.

My doubts about the future are based, not on the difficulties of making personal adjustments in the interests of a better health service, but on economic considerations. The maintenance costs of this temporary centre will be nearly £200 a week, and of this only one third will be for local health and education authority services. The Ministry of Health has made no firm ruling on how much rent the doctors, through the Executive Council, will have to pay. So it seems that almost the whole of the cost may fall on the Local Health Authority (although this is subject to a Government grant of roughly fifty per cent). We need about thirty health centres to cover the whole of Bristol!

This article is based on details given in the Medical Officer of Health's Annual Report of the City and County of Bristol.

ON REACTIONS WITH THE NEWER ANTIBIOTICS

BY

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The newer antibiotics, chloramphenicol and aureomycin, produce side effects three or four times more frequently than does penicillin. Fortunately most are not serious. Reactions are more likely to happen when the daily dosage is high or when administration is prolonged. Most of the untoward effects occur in the gastro-intestinal tract and this system seems more susceptible in women than in men. Other systems of the body are affected far less frequently.

With oral therapy about forty per cent of patients develop some symptoms or signs in the mouth. They complain of dryness, cracks at the corners of the mouth, or soreness of the tongue; and they may complain of an unpleasant taste in the mouth or lose the sense of taste altogether. The changes that are seen are varied. Most often the tongue is red and smooth and there is loss of the filiform papillae. Less frequently there is a hypertrophic glossitis and, when the papillae become covered with fungus, there may be a true black tongue (Tomaszewski, 1951). Other changes seen are vesicles and papules on the palate. It is not certain why these changes occur but there are two possibilities—first, as the changes resemble riboflavin deficiency (Harris, 1950), it was thought that the antibiotics somehow brought them about by interfering with vitamin B synthesis in the bowel. This seems unlikely because riboflavin does not prevent their occurrence though it hastens their disappearance. The other more likely possibility is that the normal bacterial flora in the mouth are killed off by the antibiotics and that Yeasts and Monilia (*Candida albicans*) grow there without competition.

Some form of indigestion is frequent; this amounts to flatulence in twenty-five per cent of cases and nausea in twenty per cent but in five per cent there is actual vomiting (Tomaszewski, 1951). The flatulence may be severe and may cause epigastric pain. These symptoms are lessened without interfering with their action by giving the drugs with milk or food. Antacids and alkalis should not be used to relieve the dyspepsia as they reduce the activity of the drugs which are only stable in an acid medium (Harvey *et al.*, 1949). The appetite varies from patient to patient and cravings may be present as in pregnancy.

In the rectum and anus side effects have been reported in up to fifty per cent of cases. The stools often become large, loose and odourless soon after treatment begins. Bacteriological examination of the faeces shows that the *B. coli* have been largely replaced by Yeasts and Monilia. This latter organism probably accounts for the troublesome proctitis that occurs in ten to twenty per cent of cases (Harris, 1950). The perianal skin becomes red and thickened and whitish plaques and fissures may be seen. Genital pruritus is often present, particularly in women in

whom there may be a vulvo-vaginitis due to Monilia (Nayfield, 1951; Reiches *et al.*, 1951). Antihistamine compounds give only partial relief from the pruritus though oestrogens may relieve the vulvo-vaginitis (Harris, 1950). Aureomycin tends to cause this group of symptoms more readily than does chloramphenicol.

In the same way that these drugs destroy the normal bowel flora and allow Monilia to flourish so they may permit pulmonary moniliasis to occur when used for the treatment of chronic lung infections. The possibility of a disseminated mycosis occurring, similar to that which has been described during penicillin therapy, should be borne in mind.

No harmful effects on the kidneys have yet been reported.

It has been reported that in the presence of already existing liver damage heavy doses of aureomycin may increase the severity of the damage (Lepper *et al.*, 1951). On the other hand, aureomycin is said to have had good effect in the treatment of patients with chronic liver disease (Shaffer *et al.*, 1950).

Granulocytopenia has occurred during chloramphenicol therapy though it was not severe and was readily reversible (Gill, 1950; Volini *et al.*, 1950). A fatal case of aplastic anaemia while on chloramphenicol is on record (Rich *et al.*, 1950) and the author knows of another in this country. No other definite effects on the blood have yet been proved though much work on this subject is in progress. Aureomycin has recently been reported to be effective in the treatment of pernicious anaemia (Lichtman *et al.*, 1950) and in the anaemia of the " intestinal loop " syndrome in rats (Watson *et al.*, 1952). This drug has also been found to increase growth when given to young animals (*Lancet*, 1950) and possibly children too (Robinson, 1952).

Aureomycin in heavy dosage may produce euphoria, drowsiness, irritability and mental confusion, and a possible case of polyneuritis has been reported (Marten, 1951). Chloramphenicol sometimes produces weakness of accommodation and general muscular weakness (Gray, 1950). All these effects are transient.

Either drug may produce a fleeting local or general urticaria during the first or subsequent courses. Erythema and vesiculo-papular eruptions sometimes appear particularly on the dorsum of the hands and about the face. They may be precipitated by exposure to sunlight and are said to occur more frequently in those who take alcohol. These rashes are considered by some to be due to sensitization of the patient to the drugs (Peck *et al.*, 1950; Bedford, 1951).

Intramuscular injections of aureomycin and terramycin are painful and cause much tissue reaction so they are rarely given this way. Intravenous injections are liable to cause phlebitis unless given well diluted. Chloramphenicol has, so far, been given by mouth only. In typhoid fever this drug may cause vasomotor collapse and an abrupt fall of temperature during the first forty-eight hours of treatment (*Brit. Med. J.*, 1950). The mechanism of this is not clear.

At the time of writing reports on side effects from terramycin are scanty though this drug has been in use in the United States for nearly two years. They appear to be similar to those produced by aureomycin.

SUMMARY

Some of the side effects of chloramphenicol and aureomycin are described. They fall into two major groups: those on the gastro-intestinal tract which are common, and those on the other systems of the body which are uncommon.

The former, though troublesome, are not dangerous and do not often necessitate stopping treatment.

REFERENCES

Bedford, P. D. (1951). *Brit. Med. J.*, **1**, 1428.
Brit. Med. J. Annotation (1950). Ibid., **1**, 829.
Gill, P. F. (1950). *Med. J. Australia*, **1**, 768.
Gray, J. D. (1950). *Lancet*, **1**, 150.
Harris, H. J. (1950). *J. Amer. Med. Ass.*, **142**, 161.
Harvey, J. L., Mirick, G. S., Schaub, I. G. (1949). *J. Clin. Invest.*, **28**, 987.
Lancet Annotation. (1950). *Lancet*, **1**, 912.
Lepper, M. H., *et al.* (1951). *Arch. Int. Med.*, **88**, 271.
Lichtman, H., Ginsberg, V., Watson J. (1950). *Proc. Soc. Exp. Biol. and Med.* 74, 884.
Marten, R. H. (1951). *Lancet*, **2**, 1143.
Nayfield, R. C., (1951). *Amer. J. Obst. and Gyn.*, **62**, 452.
Peck, S. M., and Feldman, F. F. (1950). *J. Amer. Med. Ass.*, **142**, 1137.
Reiches, A. J. and Webb, P. K. (1951). *Arch. Derm. and Syph.*, **64**, 63.
Rich, M. L., Ritterhoff, R. J., Hoffmann, R. J. (1950). *Ann. Int. Med.*, **33**, 1459.
Robinson, P. (1952). *Lancet*, **1**, 52.
Shaffer, J. M., *et al.* (1950). *Amer. J. Med. Sci.*, 220, 1.
Tomaszewski, T. (1951). *Brit. Med. J.*, **1**, 388.
Watson, G. M., Witts L. J. (1952). *Brit. Med. J.*, **1**, 13.
Volini, I. F., *et al.* (1950). *J. Amer. Med. Ass.*, **142**, 1333.

VIEWS ANCIENT AND MODERN ON PLACENTA PRAEVIA*

BY

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Something of the part played by the placenta in the causation of antepartum haemorrhage was known as far back as the time of Hippocrates. The early fathers of medicine believed that if the placenta was found over the internal os, it had fallen there from its normal position.

In the seventeenth century Ambrose Pare taught and practised version and breech delivery as the treatment for antepartum haemorrhage, although at that time the cause of the bleeding was not fully understood. Pare's own daughter developed bleeding early in labour, but was so successfully treated in accordance with her father's teaching by one of his pupils, Guillemeaux, that both mother and baby survived.

It was not until 1775 that the two chief causes of antepartum haemorrhage were recognized. They were described by Rigby who analysed twenty-eight cases he had personally treated. In nine of these he had found the placenta attached to what he described as the zone of dilatation of the uterus. This is what we would now describe as the lower segment. He pointed out that if a placenta was attached to this zone, then it was inevitable that bleeding would occur during the dilatation of this zone in labour. He therefore called bleeding due to this cause " unavoidable haemorrhage ". This was the first accurate description of placenta praevia. It is interesting that of the nine cases he treated, five mothers died. In the remaining nineteen cases he found that the placenta was normally situated, and concluded that if bleeding occurred under these circumstances it was due to some accident or the result of violent emotional disturbances such as fear, anger, or passion. Rigby treated the cases of placenta praevia by version and breech delivery, but when the placenta was normally situated he advocated rupture of the membranes. This was so successful that in his nineteen cases he had no maternal deaths.

This tradition was carried on and reinforced by Ingleby of Birmingham early in the nineteenth century. He stressed mainly the importance of an accurate diagnosis at the earliest possible moment, and for this advocated careful exploration of the uterus after inserting the whole hand into the vagina and two fingers to their maximum length into the uterine cavity.

From 1800 until recent times, progress was slow, but two very important aids to treatment were increasingly practised. In 1820, the *Lancet* for the first time recorded the use of blood transfusion in the treatment of placenta praevia. Twelve ounces of blood from a coal heaver husband were successfully given to

* An abridged version of a paper given before the Bath, Bristol and Somerset Branch, B.M.A., on 6th February, 1952, at Royal United Hospital, Bath.

his wife. In a lecture at Guys Hospital at that time, a Dr. Blundell discussed the relative merits of animal and human blood donors, and pointed out the practical difficulties of obtaining the co-operation of suitable animals for transfusion in emergencies. The second development was the increasing use being made of Caesarean Section, first of all the classical operation and later the lower segment technique.

Progress continued on these lines until in 1945 Macafee of Belfast and Johnson of America challenged the dictum that an immediate vaginal examination should be made in antepartum haemorrhage. They pointed out that with proper hospital supervision, patients in whom placenta praevia was suspected could be nursed until the child was viable. In this way premature labour induced by vaginal examination was avoided with a consequent great reduction in foetal mortality. Meanwhile, Marshall at Liverpool was practising Caesarean Section in most cases of suspected placenta praevia.

Various classifications of the types of placenta praevia had been made by British and American authorities, but all were based on vaginal examination and the estimation of the relationship of the placenta to the internal os. The disadvantage of all these was that in the attempt to decide on the correct classification of a placenta praevia, haemorrhage was often induced with danger to both the mother and babe.

In Oxford the problems of antepartum haemorrhage and of placenta praevia in particular have been studied with great care after a difficult case which ended with a maternal death in 1940. In the later years of the investigation the clinical team was greatly assisted by Dr. Reid of the Department of Radiology who was developing his own technique for soft tissue radiography. Possibly even more important than this was the use he made of gravity to determine by inference whether the placenta was interfering with the engagement of the presenting part at the brim of the pelvis. Particular care was paid to the distance on the X-ray film between the head and the promontory of the sacrum behind and the symphisis pubis in front. This relationship was studied by two lateral films, one taken with the patient in the erect position, and one when she was tipped to an angle of sixty degrees. This was known as the semi-erect film. In most cases, with careful clinical assessment of the case, the radiological findings merely confirmed what the clinician has suspected from his abdominal examination. It had been learned that the most dangerous type of placenta praevia was the one which was attached posteriorly to the lower segment, and by overlying the promontory of the sacrum reduced the effective conjugate at the brim. In this way the presenting part was displaced from the brim, and malpresentations were common. In these cases it was also frequently found that the umbilical cord was attached to the lower pole of the placenta and when this was so, even if the presenting part did enter the brim, there was danger of pressure obstructing the foetal circulation and causing intra-uterine death.

The result of this study led to the belief that there were two safe ways of treating placenta praevia. The first was by rupturing the membranes and the second was by Caesarean Section. The choice of which method to use was made by assessing the relationship of the presenting part to the brim of the pelvis. If it could be made to enter, the membranes were ruptured, and if it could not, section was performed. This was done without any reference to the position of

the placenta in terms of the internal os, and was a departure from orthodox views on the subject. When possible treatment was postponed until after the 36th week.

A most interesting and helpful colour film of the X-ray technique and lower segment Caesarean Section was then shown. Mr. Stallworthy then summarized the principles of treatment:

Firstly, that the possibility of placenta praevia should be diagnosed in the ante-natal clinic before haemorrhage began by the position of the head. A single X-ray in the semi-erect position was normally sufficient to indicate the possibility or otherwise of placenta praevia by the Reid technique. If haemorrhage began before thirty-six weeks the patient was admitted to hospital with all emergency equipment immediately available and could very frequently be carried along almost to full term with excellent prospects of obtaining a live child. If haemorrhage began after thirty-six weeks the child was viable and the course of action outlined above could be followed.

The great danger of moving such cases to a hospital was recognized, and in this connection there was no doubt that the " Flying Squad " which Mr Stallworthy, at the suggestion of Professor Chassar Moir, formed in 1939 had more than repaid the trouble and expense involved. It had now been called more than 400 times, and with only one death. On three occasions emergency Caesarean operations had to be undertaken in the nearest small hospital.

On an analysis of the latest figures, Mr. Stallworthy was able to show that in over 250 cases dealt with since the maternal death in 1940, no mother had died, and in the last 100 cases the uncorrected infant mortality including stillbirths and neonatal deaths had been ten.

DISCUSSION

Dr. H. M. Golding (Chairman) stated how greatly the meeting had appreciated Mr. Stallworthy's address and invited comments and questions.

Professor Lennon paid a sincere tribute to the work and persistence of Mr. Stallworthy and Dr. Reid and stressed the vital importance of team work in dealing with these cases. He drew attention to the danger of cases in which the cord was attached eccentrically to the placenta so that an endeavour to pass the head into the pelvis could stop a foetal heart in a very short time. He also announced that a Flying Squad had begun operating in Bristol on 1st January and had already been in action.

Dr. Sutherland stressed the need for more widespread adoption of flying squads in spite of difficulties at Regional Board level.

Mr. Bruce Blair proposed a vote of thanks to Mr. Stallworthy and said how much he had been impressed by the clarity and simplicity of the address. He felt it was of the greatest value to the branch that Mr. Stallworthy should visit them and he felt sure that all were extremely grateful for his trouble in coming from Oxford.

UNEXPLAINED PYREXIA IN A CHILD

FROM

CARCINOMA OF THE ADRENAL CORTEX

Case Report at a Clinico-Pathological Conference, Department of Pathology, University of Bristol

Dr. Mary Boyd gave the clinical details:—This girl, aged eleven years and three months, was admitted to the Bristol Children's Hospital under Professor A. V. Neale in November 1951.

In June 1945, at the age of four years and nine months, she developed fever, 100 to 101 degrees in the morning rising to 104 degrees at night. This lasted three days and recurred at short intervals for three months. She also complained of abdominal pain. In February 1946, at the age of five years and five months, she had similar attacks of fever with pain across the abdomen and down the left side. The abdomen was noted to be rather larger than usual. In the winter of 1947 she again had fever and left upper abdominal pain. In November 1950, at the age of ten years and two months, pain recurred in the abdomen, which was very distended. She weighed fifty-five lb. and began to put on weight rapidly. Her waist increased two inches in one week. In April 1951 she was taken to the doctor as her relatives were questioning whether she had a glandular disorder.

In the six months before admission she developed hirsuties of upper lip, eyebrows, back and pubic region. Acne appeared over the face and upper arms and later there was backache. In the last year her weight increased from fifty-five lb. to 112 lb. and her waist measurement increased ten inches. She did not menstruate. Her general health remained good all through and her appetite was good, but recently she had a sense of fullness after small meals.

She was an obese girl (see Plate I) with plethoric complexion and acne of forehead, nose, chin and both upper arms, mild hirsuties of upper lip, eyebrows almost joined, a little axillary hair, well-developed pubic hair in female pattern and excess of downy hair on back and limbs. Height 51½ in. (normal average 57 in.); weight 112 lb. (normal average 79 lb.) There were no striae and little breast tissue, but excess of fat around the breasts and clavicular regions, as well as over the trunk in general. The waist measurement was 34 inches. There was some enlargement of the clitoris.

A mass was palpable in the left hypochondrium about three finger-breadths below the costal margin. It was tender, dull on percussion and moved a little on respiration, but its edge felt thicker and more rounded than the spleen. The apex beat could not be palpated on account of the thick chest wall. The heart sounds were normal, and the blood pressure 136/70.

The laboratory investigations were as follows: R.B.C. 5·3 million; Hb. 106 per cent; serum electrolytes all normal; serum protein 7·9 per cent. Urinary 17-ketosteroids 206 mgm. in a day (normal at this age under 5 mgm. daily), with urine volume 1,450 mls. that day.

Dr. Jean Sheach demonstrated X-rays:—The skull showed a normal sella turcica. In the left hypochondrium there was a soft tissue opacity with irregular calcification. An I.V.P. showed downwards and forwards displacement of the left kidney with calyces and pelvis normal. The diaphragm was elevated on the left and the heart slightly enlarged. There was no change in the lungs. The lumbar spine and femora showed no metastases.

Mr. R. E. Horton outlined the findings at the operation on December 13th, 1951:—The incision was made through the tenth left intercostal space, with division of the posterior ends of the tenth and eleventh ribs, and extended well forward to the mid-line of the

PLATE I

Patient on right, compared with normal girl of same age.

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epigastrium. The diaphragm was divided and the pleura opened. The tumour displayed was dark red with large veins coursing over the surface. It was soft and diffluent and had undergone recent haemorrhage into its substance, which added to the difficulty of handling. The tumour was mobilized with the left kidney to which it was attached. A tongue of growth was felt extending to and probably across the mid-line. It was realized at this stage that the tumour could not be removed completely. Further, the child was now in a state of profound adrenal shock as a result of impaired function or atrophy of the other adrenal. That part of the tumour which had been mobilized was removed with the kidney. A large piece of tumour was left behind.

The girl was very cyanosed at the end of the operation, during which she had two pints of blood, methedrine and eucortone. She was given an intravenous drip of nor-adrenaline and also eucortone (10 cc. four hourly), and was placed in an oxygen tent. The blood-pressure was raised from about 50/30 to 90/64 but her general condition gradually deteriorated until she died on December 16th, 1951.

Dr. O. C. Lloyd's report on the operation specimen was as follows:—The specimen received consisted of the anterior half of the left kidney and of the tumour (14 by 10 by 4 cm.) at its upper pole. This tumour was soft, cream-coloured, necrotic and haemorrhagic. It was invading the renal capsule but not the kidney, and was apparently replacing the left adrenal. It was lobulated, the lobules being surrounded by fibrous capsules, which sections show are being invaded by tumour cells.

A separate half nodule (3·5 by 2·5 by 1 cm.) resembled a lymph-node metastasis, but sections showed no lymphoid tissue.

The tumour was composed of medium-sized polygonal cells, even in size but not in shape, with large round vesicular nuclei and dense basophilic cytoplasm in which there were a few small vacuoles. The cells had distinct outlines and were distributed around the blood vessels; the other areas being necrotic. Mitoses were numerous.

I think there can be little doubt that this is a cortical carcinoma of the adrenal, both on clinical grounds and because the histopathological alternatives of neuroblastoma and Wilms' tumour can be ruled out.

Dr. G. A. C. Summers reported the autopsy:—The external features have already been described. In addition to great obesity there was marked oedema of the back, but not of the legs or ankles. Internally there was extensive peritoneal ecchymosis, a little free blood in the peritoneal cavity and some collapse of the lower lobe of the left lung with a few recent adhesions. I soon found why total extirpation of the tumour had been impossible. It is true that the left kidney and a mass of left adrenal had been removed, but there was still a great deal of tumour tissue left. This had roughly the shape of a large thyroid gland. The left " lobe " measured 8 by 5 by 3 cm. and its lateral surface, where the surgeon's knife had passed, was rough and vascular; but only very little blood had escaped since the operation. The middle and right " lobes " were in the left renal vein and in the inferior vena cava, distending both, the former to a diameter of 3 cm., and the latter to measure 4·5 cm. from side to side and 3 cm. from front to back where the left renal vein entered. The right lobe extended 1 cm. below the lower margin of the left renal vein, and for 10 cm. from there right up behind the liver. The histological picture of the tumour has already been described.

There was considerable distension of the inferior hemi-azygos vein and of the azygos vein, which compensated for obstruction of the inferior vena cava. The heart weighed 250 g., which is twice the normal weight at this age. This was due to left ventricle hypertrophy. The lungs were oedematous and contained many small scattered metastatic deposits, with one large mass of tumour blocking and distending the main left pulmonary artery. There were no metastases in lymph-nodes nor in the liver. Microscopically there was widespread centri-lobular necrosis of the liver.

The ovaries measured 2·5 by 1·7 by 1·4 cm., and contained many follicular cysts, from 0·2 to 0·4 cm. in diameter. The Fallopian tubes and uterus were underdeveloped for the age and the endometrium was smooth with poor glandular development. The thyroid was well developed but, microscopically, activity appeared subnormal. The pituitary was of average size and shape with no histological abnormality, the basophils in particular showing no change. Inside the skull there was a narrow protuberance arising from the ethmoid bone behind the crista galli, but the frontal and other bones were normal.

The remaining adrenal was very small, only 1·5 by 1 by 0·15 cm. Microscopically the cortex was poorly developed, the zona reticularis being absent.

Several factors contributed to her death. There was a massive tumour embolism of the left pulmonary artery. Hypotension followed removal of the large actively hormone-producing tumour. The degree of centrilobular necrosis in the liver suggests that hypotension persisted after the operation in spite of therapy. The right adrenal was atrophied and incapable of taking over the function of the partly extirpated tumorous gland.

It seems that the effects of hyperadrenalism were not mediated by the pituitary as there was no abnormality of its basophil cells. Thyroid activity was apparently depressed. Certainly the ovaries were influenced, probably by an excess of follicle-stimulating hormone, which could have come from the tumour. The oestrogenizing influence of the ovaries was neutralized by the androgens of the adrenal tumour. Evidence of virilism was present in the enlarged clitoris, the florid skin, acne and abnormal 17-ketosteroid excretion. Obesity was obvious. Another point of interest was the left ventricular hypertrophy suggestive of hypertension.

Professor T. F. Hewer:—I think one of the most interesting features is the atrophy of the contralateral adrenal which usually occurs when there is great pathological overactivity of one gland. The removal of so much of the tumour induced what amounted to an Addisonian crisis.

Dr. G. L. Foss:—The technical difficulties involved in surgery of the adrenal are well recognized and the risk of death from adrenal cortical insufficiency is very great owing to the frequent atrophy of the contralateral gland. The importance of adequate supportive therapy is perhaps not appreciated as widely as it might be, but this has recently been stressed by Waltman Walters in his Moynihan lecture (1952). The most important factor is the anticipation, prevention and control of post-operative adrenal cortical insufficiency, and he recommends 200 mgm. cortisone daily for two days before and several days after the operation. Before the availability of cortisone, satisfactory results were obtained from D.O.C.A., cortical extract and glucose saline but the important point is that such therapy should be initiated *before* operation. The relative importance of collapse from removal of the sole source of nor-adrenaline is probably less.

No hard and fast rule can be laid down in correlating the clinical, biochemical and pathological findings in tumours of the adrenal cortex and in part these depend on the sex and age of the patient.

The adrenal cortex is a very complex factory, producing numerous steroids, twenty-seven of which have been isolated. These are usually grouped into those controlling electrolytes, those controlling carbohydrate and protein metabolism, and the sex hormones; these sex hormones include androgens, oestrogens and progesterone.

The clinical picture then resulting from a tumour or hyperplasia will depend on the predominance of one or more of these groups and every gradation from Cushing's syndrome to the adrenogenital syndrome may be seen.

In some prepubertal girls adrenocortical tumours producing excessive oestrogens give rise to precocious puberty and menstruation, and rarely in adult males feminism is seen from the same cause.

In this particular case the high value of 17-ketosteroids, or androgen excretion products, is in keeping with the stunted growth, acne, and other evidence of virilism, but her obesity and plethora are more suggestive of a high production of 11-oxycorticosteroids.

Dr. D. H. Johnson:—I am very interested in the changes that Dr. Summers has demonstrated in the liver and I would like to try to link them up with the long-continued administration of nor-adrenaline. Centrilobular liver cells normally have a relatively precarious oxygen supply. Under anaerobic or partially aerobic conditions the liver produces the vaso-depressor material described by Shorr, Zweifach and Furchgott (1945) which may be responsible for the irreversible stage of shock. Further, Delorme (1951) showed that the resistance of dogs to experimental shock by sustained haemorrhagic hypotension is greatly enhanced by maintaining an adequate supply of oxygenated arterial blood to the liver.

Dr. Grayson and I (1951) have for some time past been working on the problems of blood flow in the rat's liver. We have shown that nor-adrenaline produces unequivocal decrease in liver blood flow and that this decrease also occurs when the portal supply is

occluded. In other words nor-adrenaline has a marked vasoconstrictor effect on the hepatic arterioles. This vasoconstrictor effect is more marked than that produced by the equivalent pressor dose of adrenaline.

Appreciating that the nor-adrenaline infusion, continued for some forty-eight hours, was given largely as substitution therapy and that during the initial period of hypotension before nor-adrenaline was given the liver may well have sustained irreparable damage, I would submit that the value of such therapy is questionable.

Professor F. T. Hewer:—This adrenal tumor was evidently present from June 1945—a history of six-and-a-half years. Although these tumours notoriously invade the veins, such extension seems to have been a late event in this case.

REFERENCES

Delorme, E. J. (1951). *Lancet*, **1**, 259.
Grayson, J., and Johnson, D. H. (1952). *Brit. Med. J.* **1**, 546
Shorr, E., Zweifach, B. W. and Furchgott, R. F. (1945). *Science* **102**, 489.
Walters, Waltman. (1952). *Lancet*, **1**, 221.

Reports of Meetings

CLINICAL SOCIETY OF BATH

The Medical Hazards Confronting the Modern Aviator

Dr. LEWIS SCOTT WHITE discussed *The Medical Hazards Confronting the Modern Aviator*, on December 14th, 1951.

The vast changes which had taken place since the war were perhaps not fully realized. Speed, height and versatility of both civilian and service aircraft had increased to such an extent as to make the strain on pilots correspondingly greater, and the problems of aviation medicine very much more complex.

The main factors were, firstly, rapid changes in pressure due to increased rates of climb and descent and, in pressurized aircraft, the sudden loss of cabin pressure from accident or enemy action. Secondly, changes in motion.

These factors had always been dangerous, but increasing speeds and decreasing safety margins, increased the risk of a serious outcome. In a lateral plane, changes in motion were well withstood by the human body. Downward forces in the vertical plane (i.e. + ve G) were countered with limited success by pressure suits, horizontal posture, etc. Upward forces (i.e. — ve G) were less well tolerated. Whereas the former caused first *greying out* due to loss of colour vision, then *blacking out* and final unconsciousness, recovery usually took place on removal of the stress in good time. On the other hand, with negative G a *red out* occurred, leading to cerebral haemorrhage and death. In preventing these conditions many factors were involved, including good health, general fitness and constant practice.

The difficulties were increased by the use of jet aircraft which, although simpler, quieter and less vulnerable to fuel fires, called for exceptional speed of thought, ability to fly by instrument and ground control, and the strictest flying discipline.

The effect of ultrasonic noise on the ears and higher centres had probably been exaggerated. Usually it arose only in factories where the noise of engines under test was constantly varying through wide frequency ranges.

Cockpit temperature control at heights beyond the protection of the atmosphere involved special problems. Both cooling and heating might be required; a particular difficulty had been the tendency of perspex surfaces and instrument dials to ice-up during descent through cloud. This difficulty was heightened in jet aircraft by the poor forward vision, although vertical and lateral vision were good. Accurate instrument flying was essential, and it was found that specially sensitive instruments had to be developed. The time available for reaction was very small at jet speeds, and instrument flying was therefore very fatiguing to the pilot.

The problem of escape from a damaged fighting jet aircraft was important and it was impossible for the crew to climb from the aircraft without receiving fatal injuries. At present the chief development lay in methods of ejecting the pilot and his seat from the aircraft by a small explosive charge and subsequent rapid free descent to a reasonable atmospheric pressure when a parachute could be used. The force of the ejecting charge had to be most carefully calculated, and compression fractures of the vertebral bodies had occurred in some cases.

Dr. SCOTT WHITE implied in his final remarks that speeds and stresses were rapidly passing beyond the limitations of the human pilot and that complete mechanical control from the ground is the most probable outcome.

DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY

Tonsils and Adenoids: dogmas and doubts

Mr. RAYMOND HINDE spoke on *Tonsils and Adenoids: dogmas and doubts*, at a meeting on January 24th, 1952. The physiology of the tonsils and adenoids, he said, is

imperfectly understood. The pharyngeal lymphoid tissue is functional only from birth to puberty after which time the adenoids disappear. The lymphoid tissue of Waldeyer's ring differs from that of the lymph nodes in that it has no afferent channels. There is a close morphological relationship between the lymphoid tissue of Waldeyer and that of Peyer's patches; indeed when the tonsils are swollen the Peyer's patches also enlarge.

Tonsillar changes occur at the time of the first dentition at the age of 2½ years: it is suggested that tonsillar enlargement occurring at that time is due to local sepsis in the mouth. If repeated infection by a virulent organism occurs then, permanent pathological changes may follow resulting in the aggregation of masses of lymphoid follicles in a fibrous stroma. But far oftener this tonsillar enlargement is in the nature of a hyperplasia, the sequel of a physiological rather than a pathological change, when it is not possible to tell whether a tonsil is septic merely by looking at it.

A swab from the the tonsils is never sterile. It is normal for a tonsil crypt to contain food debris and organisms; only when a crypt becomes sealed off does it become a source of sepsis. A word of caution must, however, be entered here; the tonsils are a portal of entry for the tubercle bacillus and some 4 per cent. of all tonsils removed show giant cell systems.

Enlarged adenoids need removing only if they obstruct respiration or if they are a source of infection. If the nose cannot be cleared secondary infections such as sinusitis may develop. Before operating it is advisable to wait at least six months so as to be sure that the adenoidal enlargement is really pathological. It is by no means certain that adenoids affect the frequency of colds. On the score merely of size tonsils should be removed only if they meet in the midline or cause dysphagia. Since 1931 there has been a fluctuating decline in the frequency of operation for tonsils and adenoids in the United Kingdom. This decline is due to a more conservative attitude and a more critical selection of cases for operation. If operation is performed it is important that the tonsils and adenoids should be removed completely; remnants left behind provide a greater opportunity for infection than a whole tonsil. It is difficult to decide in individual cases whether the tonsils and adenoids should be left alone or whether tonsils or adenoids only should be removed. At present there are no satisfactory figures on which an accurate judgment can be based.

The influence of environment and home hygiene are considerable. Though it may be difficult or impossible to alter the environment of a family where there are several children, it is possible—and sensible—to treat the one who starts the attacks and leave the others alone.

Mouth breathing may be due to factors other than nasal obstruction and not every child who keeps his mouth open breathes through it. In selecting cases for operation the nose should always be inspected first, then the adenoids using a post-nasal mirror, which is possible in at least 80 per cent. of children.

Before tonsils are removed carious teeth should receive attention. Where operation is considered necessary the optimum time for performing it is when the child has been at school for six or nine months and has had time to develop such immunity as he can to the organisms to which he is exposed. Two further clinical points should be borne in mind: the so called *fixed tonsils* is always one which has been the seat of clinical attacks of infection: otitis media is an indication for the removal of adenoids.

The Scope of Clinical Electrocardiography

Dr. G. M. COLSON discussed *The Scope of Clinical Electrocardiography* at a meeting on February 7th, 1952. Cardiac study, he stressed, demands careful history-taking and complete physical examination. To these, though they provide indispensable supplementary information, electrocardiography and cardioscopy are of secondary importance: but no cardiac study is complete without an electrocardiogram.

In what ways can electrocardiography be of help? Dr. COLSON listed the following; by determining the cardiac mechanism; by indicating the presence of myocardial death, ischaemia, or disease of a general nature; by showing the effect of drugs and abnormal electrolytes, or the presence of ventricular strain; by providing evidence of defects in conduction; by establishing in conjunction with other clinical evidence, a diagnosis; and by aiding in the treatment of cardiac disease. It must, however, be borne in mind that

electrocardiography cannot establish an aetiological diagnosis, indicate the prognosis or the degree of cardiac compensation, or the presence of valvular lesions.

Thus, a tracing may be normal, slightly or strongly suggestive, or definitely indicative of myocardial disease. Though it may be said that a certain tracing is compatible with a certain disease, for example mitral stenosis, it must be remembered that pulmonary stenosis produces the same picture: the tracing is not therefore diagnostic of either condition. Again, in a case of coronary occlusion, the tracing may be diagnostic of myocardial infarction and will often sharply localize the lesion, but it will give no indication as to whether the underlying pathological process is one of syphilis, arteriosclerosis or periarteritis nodosa. Moreover, in a case of coronary occlusion the electrocardiographic picture may be reverting to normal when the patient may be dying of congestive failure. Thus, a patient may have a normal electrocardiogram and still have gross cardiac disease. On the other hand an abnormal tracing means cardiac disease in the absence of all other positive evidence. Primary pulmonary hypertension gives a tracing identical with that of pulmonary stenosis. Diagnosis and prognosis must therefore be made not by the machine but by the clinician who examines both patient and electrocardiogram.

What is new in Anaesthesia

Dr. E. J. POWELL posed the rhetorical question, *What is new in Anaesthesia?* at a meeting on February 21, 1952. Deep muscular relaxation, he said, could be attained by the use of inhalation anaesthetics but the depth of narcosis entailed was often detrimental to the patient. A fresh approach to the problem had produced the various methods of regional and spinal, sometimes combined with light general, anaesthesia. First results of the use of curare in anaesthesia were reported by Griffith of Montreal in 1942; in this country by Halton and Gray in 1946 who stressed the importance of maintaining adequate respiratory exchange when using β tubocurarine. The value of this new method having been recognized many substitutes have since been clinically assessed. Such are decamenthonium iodide, syncurine, C.10, and gallamine triethiodide. Tubocurine limits the action of acetylocholine upon the end-plate; decamethonium iodide causes depolarization of such a degree that it spreads beyond the end-plate to the adjacent muscle which thus becomes unresponsive to further stimuli—an action analogous to that of an excess of acetylocholine. A new relaxant, succinyl choline, has been reported from Sweden and also from Rome. Its pharmacological action in some ways resembles that of decamethonium iodide but differs in being rapidly hydrolysed at the neuro-muscular junction, probably by cholinesterase. Being transient in its action succinyl choline is of especial value in procedures requiring short periods of deep muscular relaxation.

The Problems of Geriatrics

Dr. M. C. BINNIE spoke of geriatrics, its scope and problems, on March 6th, 1952. Students and nurses in training are scantily taught about the care and management of the elderly sick. The degenerative conditions of old age offer an unlimited field for research as yet hardly explored, despite the certain prospect of an increase in our elderly population. It is vital to our economy to ensure that as many elderly persons as possible should be fit enough to contribute their quota of work beyond the usual age of retirement. Geriatrics should be regarded more as an outlook than as a specialty. Ideally, no elderly sick person should be admitted to a long-term hospital without adequate screening in the general wards of a hospital or elsewhere. A complete assessment of the patient is the keystone of sound geriatrics. This cannot be done at a single clinical examination but may take several weeks. The outstanding contribution so far made by geriatrics is its insistence on early activity. Contractures, bed-sores, incontinence, pulmonary emboli and aspiration pneumonia are some of the sequelae of too prolonged rest in bed. Cases of coronary thrombosis or congestive failure in the aged should be confined to bed for about half the time required by a younger person. Even before he gets up much can be done for the elderly patient by simple physiotherapy. All who deal with him should be encouraged to keep this principle of mobility constantly in mind.

Next in importance comes rehabilitation of body and mind. Occupational therapy especially of a diversional type can do much towards this end. Behind the geriatric unit there must be a good background of social service. The activities of the multitude of

bodies and committees engaged in this sphere are at present all too often inco-ordinated. To help the general practitioner with his geriatric work there is need of domiciliary physiotherapists, occupational therapists, and of more nurses trained in geriatric methods. Bluestone in New York has introduced a comprehensive geriatric domiciliary service based on a general hospital, avoiding the needless use of hospital beds both for diagnosis and treatment and thereby saving three-quarters of the cost. Arteriosclerosis is perhaps the gravest clinical problem of geriatrics. Though much can be done for cases of cerebral, coronary and peripheral vascular thrombosis, we are at present unable to prevent relapse or extension just as the patient has reached an ambulant stage. In domiciliary work anticoagulant therapy is not very practicable.

Senile dementia is another pressing problem. Many of these cases do not require certification but may be undesirable or even intolerable in general wards. Degenerative arthritis, chronic respiratory disorders, vertigo and urinary incontinence present great difficulties but none needs to be regarded as hopeless; many of them can be improved, or even cured, by patience and perseverance.

SOUTH WEST ORTHOPAEDIC CLUB

A meeting of the South West Orthopaedic Club was held at Gloucester on Saturday, November 24th, 1951. Thirty-six members, a record number, attended. Mr. J. BOURDILLON was in the chair.

Mr. B. KYLE (Bristol) reported on the results of forty-six tendon grafts for severed flexor tendons of the fingers which had been carried out at Bristol since 1946. The graft had been done not less than six weeks after the original injury. This was necessary in order to allow the tissues to settle down. He recorded a brief outline of the technique. The graft was obtained from the proximal remnant of the sublimis tendon or from the palmaris longus if it was present. The latter was removed with an adequate covering of paratenon. The proximal end of the graft was sutured with a buried wire suture of Bunnell type. No movement was allowed for two weeks. Nerves were repaired at the same time as the tendons. If tendons in two fingers were damaged, only one finger was grafted at one operation.

In sixty per cent a good result was obtained. The commonest cause of failure was end to end suture of tendons of unequal size with resultant adhesion. There is no danger in delaying operation for some time as retraction of the profundus is prevented by the attachment of the lumbrical muscles. One case had been operated on ten years after injury. The sublimis tendon appeared to be superior to the palmaris longus.

Mr. MERVYN EVANS (Swansea) advised operative reduction and screw fixation for the supracondylar fracture of the lower end of the humerus. He said that the treatment by activity—the so called " bag of bones " technique, was useful in the patient over forty but the result was imperfect. Operative reduction had failed previously on account of the position of the incision and the amount of trauma resulting from the reduction and the plate and screws inserted. He suggested that the Y should be converted into a simple supracondylar fracture by means of an incision on the medial side of the joint and the insertion of a transverse screw to maintain the reduction of the distal fragments. The supracondylar fracture was then manipulated into good position. A pressure bandage was applied for three weeks and then activity was commenced. He had carried out this operation in six cases. He did not advise it in patients over forty. He showed X-rays and clinical photographs of these cases which had excellent range of movement and perfect anatomical reduction.

Mr. J. BASTOW (Bath) discussed the use of the Schanz osteotomy for the late unreduced congenital dislocation of the hip or when a dislocation recurs and a shelf operation is not possible. He claimed that the result would last the patient for a lifetime and it was therefore better than arthroplasty. There was no late arthritis. He said that the completely dislocated hip does not develop arthritis but osteoarthritis of the spine occurs as a result of the lordosis. The osteotomy corrected the latter. The disadvantages were (1) limitation of movement, (2) if done too early the osteotomy angle tends to become reduced and finally, (3) that it prevented a possible arthroplasty operation from being performed later.

Mr. A. O. PARKER (Cardiff) believed that in the failed case of congenital dislocation of the hip nothing should be done until growth had been completed. He believed that

relief of the lordosis was important and favoured a posterior cuneiform osteotomy to correct this. Miss MAUD FORRESTER-BROWN liked the Lorenz osteotomy better than the Schanz because the latter caused a loss of length.

Miss FORRESTER-BROWN then gave a brief, but entertaining account of her recent flying visit to South Africa. She was most impressed by the kindness she had received everywhere and by the progress which was being made in orthopaedics. She mentioned the research which was going on into virus of poliomyelitis at Johannesburg. She had visited a hospital school at Kimberley which was coping with the disabled, especially spastics. She said that there was still a grave shortage of beds for tuberculosis. The physiotherapy services were being expanded and she was interested to see native warriors who had been trained to become highly efficient masseurs in the course of a few years.

Mr. DILLWYN EVANS (Cardiff) presented the case histories and X-rays of four cases of spinal disease simulating tuberculosis which stimulated much discussion. Three of these subsequently were proved staphylococcal infections. It was generally agreed that a negative Mantoux Test overruled a diagnosis of tuberculosis.

At the clinical session cases were presented. Mr. J. STALLMAN (Gloucester) demonstrated some excellent results of McMurray's osteotomy for osteoarthritis of the hip and convinced many members that cup arthroplasty is not the only operation to be considered in such cases.

Mr. BOURDILLON showed ten cases of slipped upper femoral epiphyses, eight of which had been seen during the last three years. Six cases had open operation and nailing. These results were excellent. Mr. Henry showed several interesting cases, among them a central fracture of acetabulum reduced by open operation and screw fixation with a perfect anatomical and radiological result; also a subluxating carpal scaphoid.

Mr. R. K. DEBENHAM (Birmingham) showed cases of chondro-osteodystrophy, arachnodactyly and diaphyseal aclasis.

After tea a visit was paid to the Gloucester Aircraft Works where the Gloster Meteor Jet Aircraft were seen in all stages of construction.

Later the Annual Dinner of the Club concluded a full but entertaining day of great interest.

SECOND PATRICK WATSON-WILLIAMS MEMORIAL LECTURE

Defence of the Air Passages

Mr. V. E. NEGUS delivered the second Patrick Watson-Williams Memorial Lecture on October 18th in Bristol University. In introducing the speaker Professor R. MILNES WALKER recalled that the Negus bronchoscope and oesophagoscope proved how broadly Mr. Negus had interpreted his specialty of ear nose and throat surgery.

Mr. Negus said that students were taught about the nose, sinuses, and the chest in different hospital departments. These structures were all parts of the same system—the air passages.

There were lessons to be drawn from animals. Thus the climbing perch, which had both gills and a respiratory diverticulum capable of taking up oxygen from the air, could breathe air so long as the epithelial lining was moist, a principle which held good throughout the animal kingdom. The sense of smell although lying in the air passages played no part in protecting the lungs. Comparative anatomy also showed that the larynx was not primarily a vocal organ but a valve to keep food out of the lungs.

In man it was of paramount importance that inspired air should be warm and moist. If this process failed then the exchange of gases in the lungs would be hampered, cilia which swept away bacteria and debris would cease to function and lyzozyme activity would stop. This air conditioning was a function of the nose and was much affected by the climate. The nose could give up as much as one litre a day. Air could be dry either when it was cold as on Mount Everest or when it was hot as in the Sahara; in either case much water had to be provided by the nose. In moist atmospheres less strain fell on the nasal mucosa. Breathing over-moist air carried a risk of blocking bronchioles by condensation of water vapour.

Mr. Negus then showed his film on " The Action of Cilia ". This film had been made during his work at the Royal College of Surgeons and illustrated beautifully how ciliated epithelium kept the air passages clear. Lamp black in a frog's Eustachian tube was swept

away and swallowed. Under high power magnification of small pieces of mucosa from a rabbit's trachea the movements of individual cilia could easily be seen. The film showed most vividly how ciliated epithelium could be hampered by altering the fluid in which it was bathed. If there was too much fluid cilia could no longer sweep it away. They merely churned it up, while in cocaine and irritating solutions cilia were profoundly inhibited.

Mr. Negus pointed out that treatment of diseases of the air passages must be based on physiological principles. Atropine for example could do harm by hindering the action of cilia. Cilia likewise could not complete their work if there was a gap in their ranks from granulation tissue or large operations. Again extensive cauterizing was illogical.

Mr. Negus finally considered the importance of all this knowledge in civilized society. Central heating without adequate humidification made the air warm but dry. The need to moisten this air was becoming increasingly recognized, particularly by architects and engineers in America.

Annotations

PROBLEM FAMILIES IN BRISTOL

Since the war ended much attention has been directed to *problem families*, in which the children are neglected, the parents irresponsible and the home is squalid. Several recent surveys have attempted to estimate their number and some of their main characteristics. The Bristol survey in 1949 (Occasional Papers on Eugenics, No. 6, Eugenics Society, 1950) showed that there were probably 155 bad problem families in the city, nearly 60 per cent. of whom were living on Corporation housing estates. These families had a high average number of children (5·8), many of whom were subsequently removed from the parents and became a direct charge on the state. Illegitimacy, child neglect, and juvenile delinquency were common. Ill-health of the mother, subnormal intelligence of both parents and educational retardation in the children were also found to be characteristic. Many of the families were living in a state of poverty. These families rarely show any improvement in spite of all the assistance given to them by health visitors, sanitary inspectors, educational welfare officers and other medico-social workers.

Some Authorities think that such families should be isolated from the rest of the community and housed in special buildings where they can do least damage and be kept under close supervision while attempts are made to re-house them. This practice was tried in Holland and failed largely because the families became outcasts and lost all self-esteem so that attempts at rehabilitation were doomed to failure. Torquay plans to build special flats for them and it will be interesting to see to what extent this experiment succeeds. Other authorities have recommended their segregation in camps where rehabilitation can be attempted. In Bristol this has happened unintentionally, for many of the families, unable to pay their rent, have been evicted, and the Welfare Authority has had no accommodation other than camps in which to re-house them. Now we have three camps largely occupied by problem families. Attempts so far made to reclaim them have proved fruitless and some other method will have to be tried.

During the war the *Pacifists Service Units* began work on these families in one or two large cities. Their volunteers were prepared to keep the families under very close supervision and control, giving them help in every possible way, *e.g.* by taking their children to school, seeing that the children attended school clinics, helping to have their houses disinfested and redecorated and assisting them in obtaining furniture and furnishings thereafter. The mothers were helped to plan the spending of their weekly allowance and every attempt was made to encourage self-help. The work of the Units has been continued since the war under the title of *Family Service Units*, largely at present operating in Liverpool, Salford and London. The Lancashire Community Council have also undertaken the training of the mothers of problem families at a recuperation centre but the results have not yet been published. This is not entirely satisfactory because only mothers and children are admitted, while the fathers remain at home, often untouched by any social agency.

After the Bristol inquiry the City Council took powers to employ home advisers after the style of the Family Service Units and to provide a recuperation centre, and furniture and furnishings free of charge or on loan. It is understood that enquiries are being made to see whether any voluntary organization is willing to undertake this work on their behalf.

This work is best done by volunteers for it requires a strong missionary spirit and a willingness to help at any time of the day or night. Also the absence of officialdom encourages the right atmosphere for rehabilitation.

SOUTH WESTERN REGIONAL HOSPITAL EXPENDITURE IN 1952–53

It has recently been reported in the Press that £15,189,000 may be available for the hospital services in this region during the year 1952–53.

This is a large sum of money and after reading these Press reports many people imagine that all will be well in the hospital service during 1952–53 and money will cease to be a difficulty. The situation is not so favourable. Firstly the amount allocated is some £900,000 less than the Region really requires. Secondly, of the £15,189,000, the Ministry has earmarked a very large reserve to cover increases in salaries and wages. This reserve cannot be spent in any other way.

Officers of the Board have recently talked with Chairmen and Officers of the thirty-seven Hospital Management Committees. As a result, the Board has decided to allocate to the Hospital Management Committees the sum of £12,650,683 for running the hospital services during 1952–53 at the same level as they were on the 31st March, 1952. The amounts allocated to Hospital Management Committees have been made in the light of the information revealed by costing statements. Comparative costings of hospitals, classified size within type, were available to the Board for the first time since the inception of the Health Service.

The object of the regional allocation this year has been to try to maintain the hospital service during 1952–53 at the level which it attained in March, 1952, and it must be borne in mind that Management Committees have only been given an extra £361,000 to meet the rise in expenditure of items other than salaries and wages over the whole year. Everybody knows about the steady rise in prices of provisions, fuel, light and heat, etc., and Management Committees are going to be hard pressed to maintain their March, 1952, level throughout the whole of the next accounting year within the sum of £12,650,683.

It is true to say, however, that the hospital service cannot stand still—it must either progress or retrogress. In order to ensure some progress, however small, the Board has found the sum of £135,000, less than 1 per cent. of the total allocated to the region, to provide for development and extension of services during the year.

If, Management Committees can save out of the sum allocated to them, they will be able, with the approval of the Board, to use this money for further developments and improvements within their groups.

Owing to the shortage of labour and materials the Ministry has limited the amount to be spent on the maintenance of hospital premises, plant and grounds. The amount given to Hospital Management Committees for this is £920,497, and this sum is part of the total Hospital Management Committees' allocation of £12,650,683.

The cost of administration of the Board itself is £101,000 or 0·66 per cent. of the total allocated to the Region; the Blood Transfusion Service, Miniature Mass Radiography Service, Cancer Records Bureau, and Contractual arrangements with convalescent homes outside the Health Service account for £280,950; the provision for the Specialist and Registrar Service throughout the Region is £1,248,900; and the balance of the Board's expenditure covers the provision of long-stay annexes to mental Hospitals, of preventive medicine and pathological services in the Bristol Clinical Area, and medical research.

UNITED BRISTOL HOSPITALS EXPENDITURE 1952–53

The Board of Governors has heard that £1,276,000 will be available for maintenance expenditure in 1952–53. Of this £56,000 is ear-marked as a special reserve against salary and wage awards and cannot be used for any other purpose. The net sum available is therefore £1,220,000. The Board had asked for £1,239,000 which included £14,000 for

developments. It therefore appears that in 1952–53 the Board will have no money for developments and will have to make a further saving of £5,000. In the present state of the country's finances we know that it is useless to budget for developments, except those which inevitably arise as a direct consequence of decisions of policy to which we are already committed. One such example arises from the present excellent rate of recruitment of nurses to the Group. Every year greater numbers of them have to be housed, fed and clothed. The increase in their numbers permits an increase in work in the Wards and Departments such as can be noted in the following figures

	1949	1950	1951
In-patients treated ..	19,648	20,111	21,782
Operations	19,787	20,687	22,416

As the work increases more money is spent on drugs, dressings, medical and surgical appliances, fuel, light and power, and so on, but the money available does not increase proportionately. If the yearly increases in the cost of everything are added it becomes quite plain that our very modest demands for developments can be met only by economies elsewhere.

The Board faces this kind of problem every year and so far has made adjustments so that neither work nor developments suffer. The result is that by now most of the possible economy measures have been fully exploited and we have reached a stage where saving money generally implies a cut in one of the ancillary services, necessitating the resumption by professional and trained staff of a certain amount of work which would normally be performed by the unskilled.

FAMILY PLANNING ASSOCIATION

The Bristol Branch, started in November 1951, has sessions at the Central Health Clinic, Tower Hill, Bristol 2 on Wednesdays at 6.30 p.m. The Branch is controlled by an executive committee of which Professor Gordon Lennon is the chairman. The doctor in charge (Dr. Constance Roberts), gives advice on family planning, marital problems, and contraceptive methods.

The fee for consultations is 5s. (it may be reduced in certain circumstances). This fee covers two or more visits within a period of six months. Appliances are paid for by the patient.

Beginning in March 1952 it is proposed to offer training to general practitioners and to nurses who are either S.R.N. or S.C.M. or have nursing experience which is considered adequate by the training committee.

Further details may be obtained from the Secretary.

Correspondence

Maternity Services in Bristol

SIR,

Professor Lennon's suggestions for a Maternity Service in Bristol present the general-practitioner obstetrician with a very gloomy future! The role he will have to play is so completely subordinate to the consultant, or his registrar that far from being an important member of the team, the G.P. is likely to become a " non-travelling reserve ".

The scheme proposed by the Bristol Local Medical Committee is one which visualises, the G.P. obstetrician as the mainstay of the service, backed by easily available and efficient consultant and emergency services. Professor Lennon's proposals reverse this idea and remove so much of the G.P's responsibility in the case that his pleasure in the work, and all incentives to improve his standards, will be destroyed.

I believe Professor Lennon is right when he says that domiciliary midwifery will become a thing of the past. The existence of the G.P. obstetrician will then depend on the type

of obstetrical hospital that is built. If it takes the form of a relatively small institution serving a locality, then the G.P. obstetrician will be able to work under good and stimulating conditions and will flourish. But if the trend is towards massive centralized obstetrical units, then the G.P. will perish beneath a mass of consultants, registrars, obstetric house surgeons and midwives, the last three clamouring to do the work that is being " supervised " by the first.

O. E. L. SAMPSON

SIR,

Whilst sharing the enthusiasm of Professor Lennon for the provision of a first-class Maternity Service, I found his article disappointing in the inadequacy and impracticability of his suggestions.

The traditional relationship between doctor, patient and consultant has proved over a long period to be too valuable to all concerned to be lightly discarded. Competition between doctor and consultant for patients destroys this relationship utterly.

Professor Lennon wants all patients to be seen in a clinic at least twice during their pregnancy. The advantages of this are not clear. How can it benefit a patient to attend a hospital if she expects to be delivered elsewhere? Are not the hospital services of X-rays and blood test already available to the G.P.? Will the Consultant or his registrar who sees a patient in a clinic be the one to attend that patient in an emergency? Even if this is ensured, is it an important matter?

I agree with Professor Lennon that there are too many clinics: all should be closed except those held by Consultants who see patients referred to them, and those for teaching students and nurses. When many patients could not afford to be treated privately all these clinics were necessary, but the health service has altered all that. The clinics run by the Public Health authorities are invaluable in educating the patient; but they are expensive and are unnecessary for antenatal supervision. Moreover the staff often has had only limited midwifery experience.

I know that there are some G.P's who provide an indifferent service for their maternity cases. One of the causes of the rift between the midwife and the G.P. is the poor opinion the former has of the G.P. obstetrician who limits his attendances to the statutory two antenatals and one postnatal, and who tells the midwife not to send for him if the case comes off in the night, or even, not to send at all! Although it is not essential for doctors personally to deliver their cases, a visit from them during labour and one or two in the puerperium mean much to the patient.

Nowadays strange midwives commonly ask if one wants to be called, or not. The prevalence of this question points to a lack of interest on the part of some G.P's and lends weight to the claim that a midwife can deal with a normal confinement as well as a G.P., if not better. Those who make this claim insist that any abnormality should be dealt with by a full time obstetrician, and it is obvious that if this argument prevails the G.P. will eventually be debarred from midwifery. Some blame for this must fall on those practitioners who are bringing the G.P. obstetrician into disrepute, and are injuring the status of those doctors whose special interest and skill justifies their inclusion on the Obstetric List. It is this minority who cause Professor Lennon and many others who have the welfare of the patient at heart to hanker after that detestable word " supervision ".

FRANK G. MOGG

SIR,

Figures we are told can prove anything. Cannot we deduce from those quoted by Professor Lennon in his stimulating contribution to the January *Journal* that Bristol has been relatively successful in reducing maternal deaths to the occasional unavoidable ones from haemorrhage or toxaemia? I think also that there will be very mixed views concerning the Professor's ideas on domiciliary midwifery. If conditions are satisfactory there is much to be said in favour of confinement at home. If this is any less safe for the normal case it has only become so in quite recent years. In this area however not only are home conditions in a great many cases unsatisfactory with regard to accommodation and help, but for a long time there has been a conditioning towards hospitals or nursing homes.

The Minister has recognized this latter fact, and made no attempt to enforce domiciliary midwifery.

We realize that a certain number of normal cases are required for teaching purposes but it is surely entirely wrong that all " social grounds " cases should occupy specialist beds and especially at the appalling cost of £20 (approx.) weekly. That is one reason why general practitioners are pressing for smaller, simpler, units where they can look after these cases themselves, and why we have been striving to get support for efficient private maternity homes. These often represent the life savings of midwives who, with a true sense of vocation and real hard work, give satisfaction to all concerned, and manage to earn a livelihood at a charge of about 10 guineas weekly. It is unjust and stupid for these homes to be crushed by an unwieldy colossus, and a great pity that many young couples who would prefer otherwise, are compelled by circumstances to have their babies expensively mass-produced. But the Treasury has directed that the only way in which it could support such an economical unit would be by taking it over, thereby sounding the death knell of economy. We have already lost one excellent home accustomed to dealing with 500 cases a year. Must the others go too?

However, that is not the Professor's fault. I am very grateful for his interest in these " extra-mural " problems, his recognition that all is not well in Bristol, and his emphasis on the necessity for team-work and real co-operation.

A. GORDON HERON

Appointments

Bristol

ARON, K. W., M.B., D.P.M.: Senior Registrar in Psychiatry, Bristol Mental Hospital.

BODENHAM, D. C., M.B., F.R.C.S.: Consultant Plastic Surgeon to Out-Patients, United Bristol Hospitals.

COPLAND, W. A., M.B.: Registrar in Radiology (Diagnostic), United Bristol Hospitals.

INMAN, G. K. E., M.B., D.M.R.D.: Senior Registrar in Radiology (Diagnostic), Southmead and Frenchay Hospitals.

JACO, N. T., B.M., M.R.C.P., D.C.H.: Registrar in Paediatrics, Southmead Hospital.

LOGAN, P., M.D., M.R.C.P.I.: Registrar in Diseases of Chest, Ham Green Hospital.

MARCH, H. P., M.R.C.P., D.M.R.D.: Senior Registrar in Radiology, United Bristol Hospitals.

MONKS, P. J. W., M.B., F.R.C.S.: Registrar in General Surgery, Frenchay and Southmead Hospitals.

NICOL, W. A., L.D.S., D.D.O.: Assistant Orthodontist, Bristol Dental Hospital.

PARKINSON, T. J., M.B., D.C.H.: Registrar in General Medicine, Southmead Hospital.

SCHOOLING, I. B., M.B., D.C.H.: Registrar in Anaesthetics, United Bristol Hospitals.

TURNER, W. D., M.B.: Registrar in Anaesthetics, United Bristol Hospitals.

Gloucestershire

FERGUSON, H., M.B., D.M.R.D.: Senior Registrar in Radiology, North Gloucestershire.

Plymouth

CARY LYNCH, G. A., D.P.H.: Consultant Pathologist, Plymouth.

FORBES, H. A. W., B.M., M.R.C.P.: Consultant Physician, Plymouth.

VELLACOTT, H. D. S., M.B., F.R.C.S.: Consultant Surgeon, Plymouth.

Notes and News

THE ROYAL COLLEGES

F.R.C.O.G. Professor G. G. Lennon.
D.C.H. Dorothy M. Pierce.

THE CLINICAL SOCIETY OF BATH

May 2nd. The Annual General Meeting.

May 3rd. The Annual Dinner, Fortt's Restaurant, Bath.

All meetings are held at the Royal United Hospital, Bath, at 8.30 p.m. Country membership of the Society is open to male practitioners in any part of the South West and the annual subscription is 10s. 6d. Particulars may be obtained from the Hon. Secretary, Mr. A. Daunt Bateman of 3 The Circus, Bath.

New and Recent Books

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